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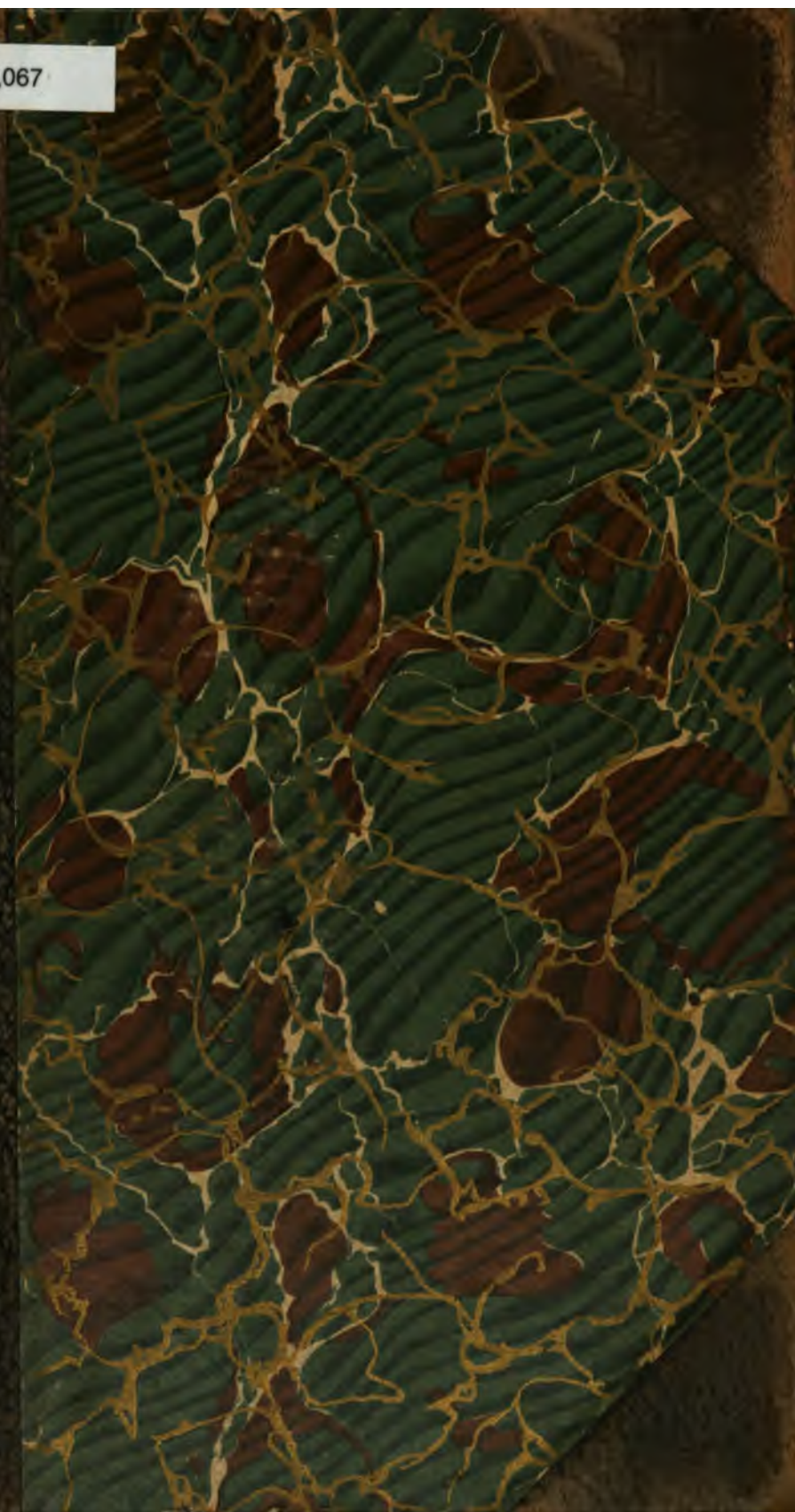
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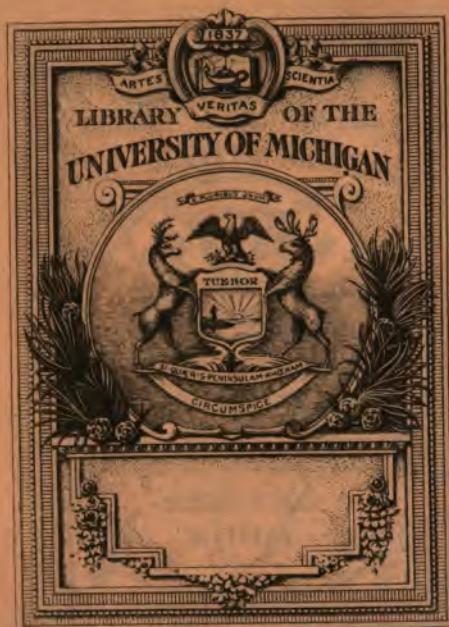
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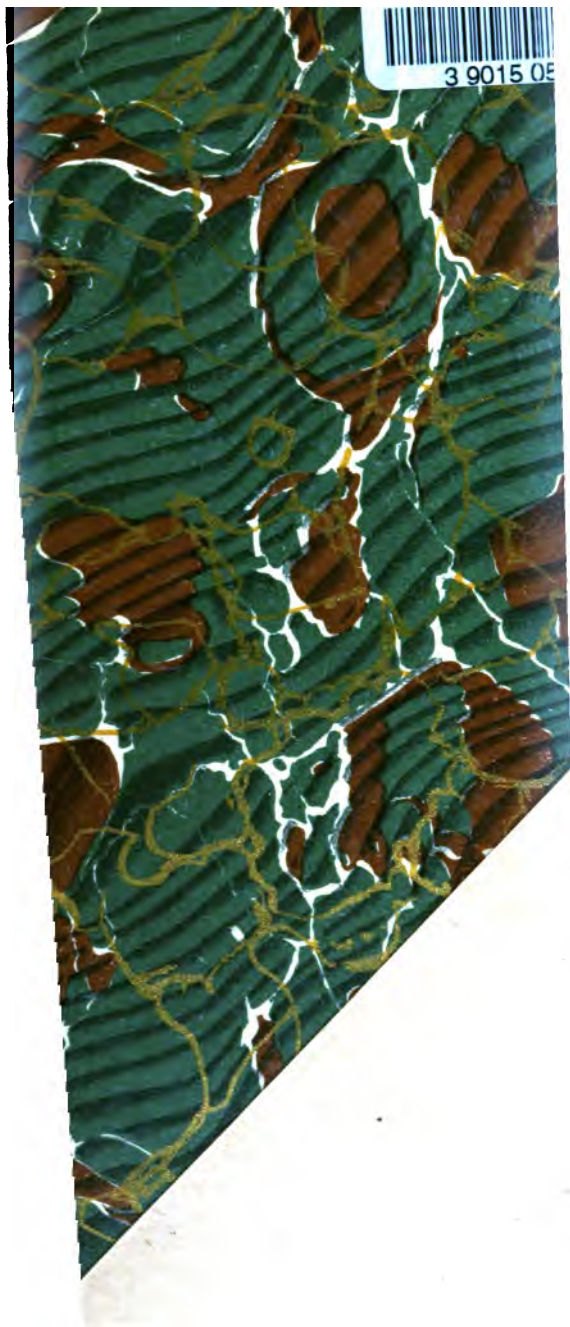
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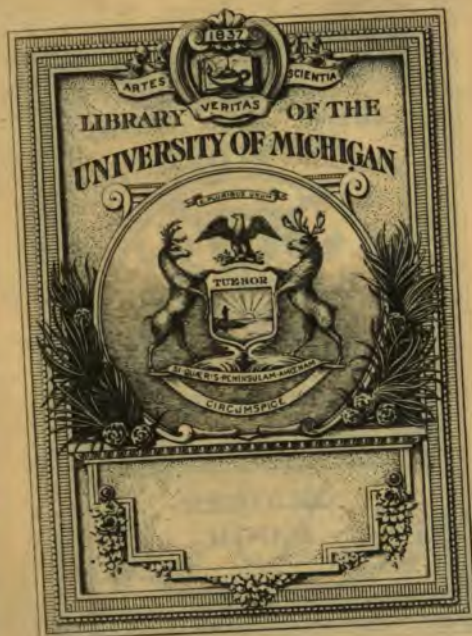






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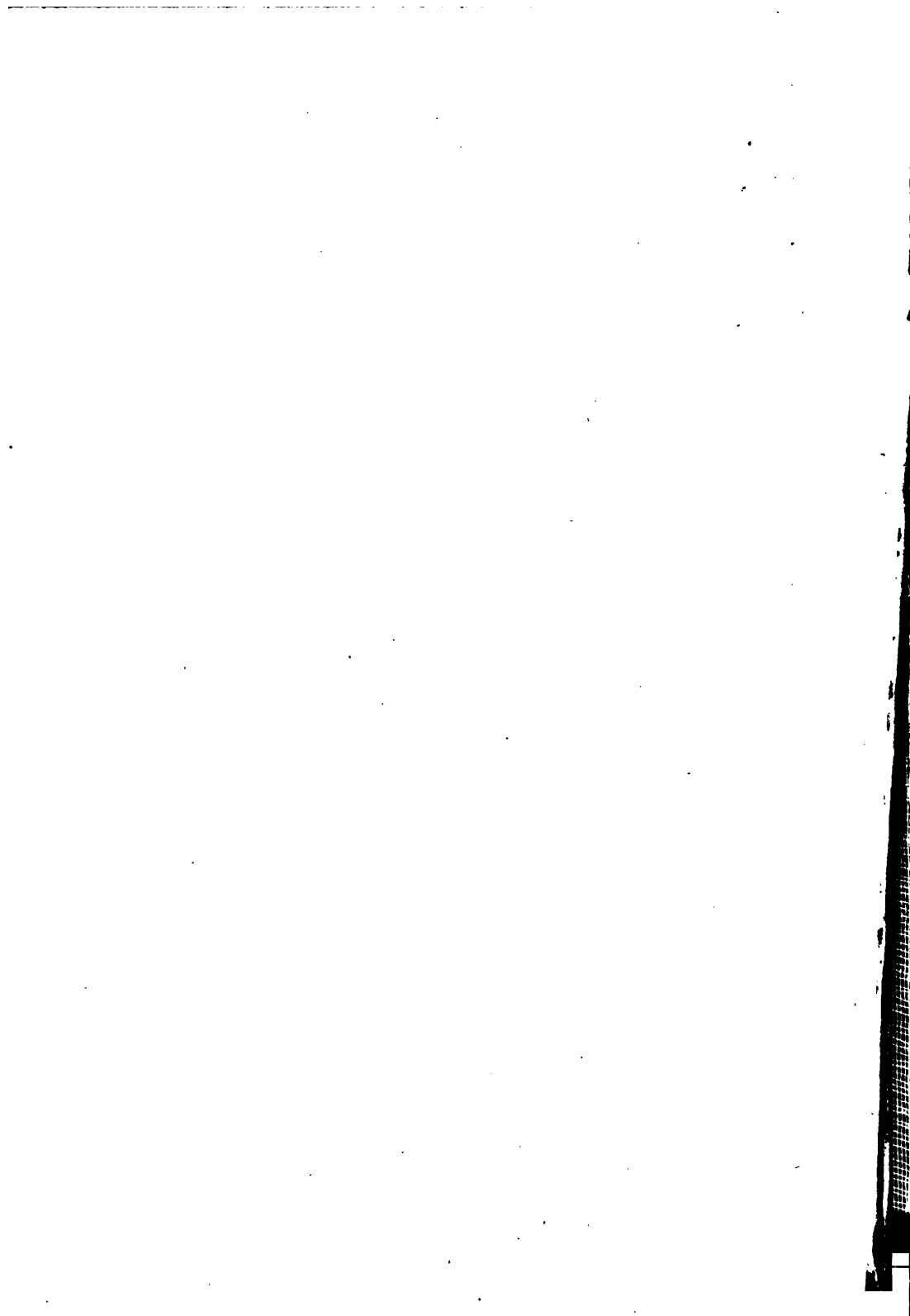




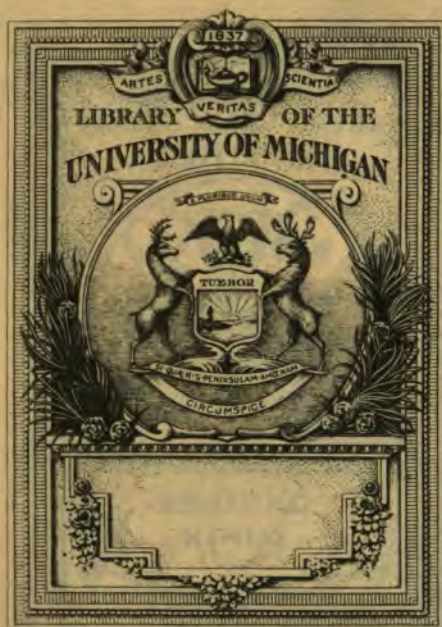
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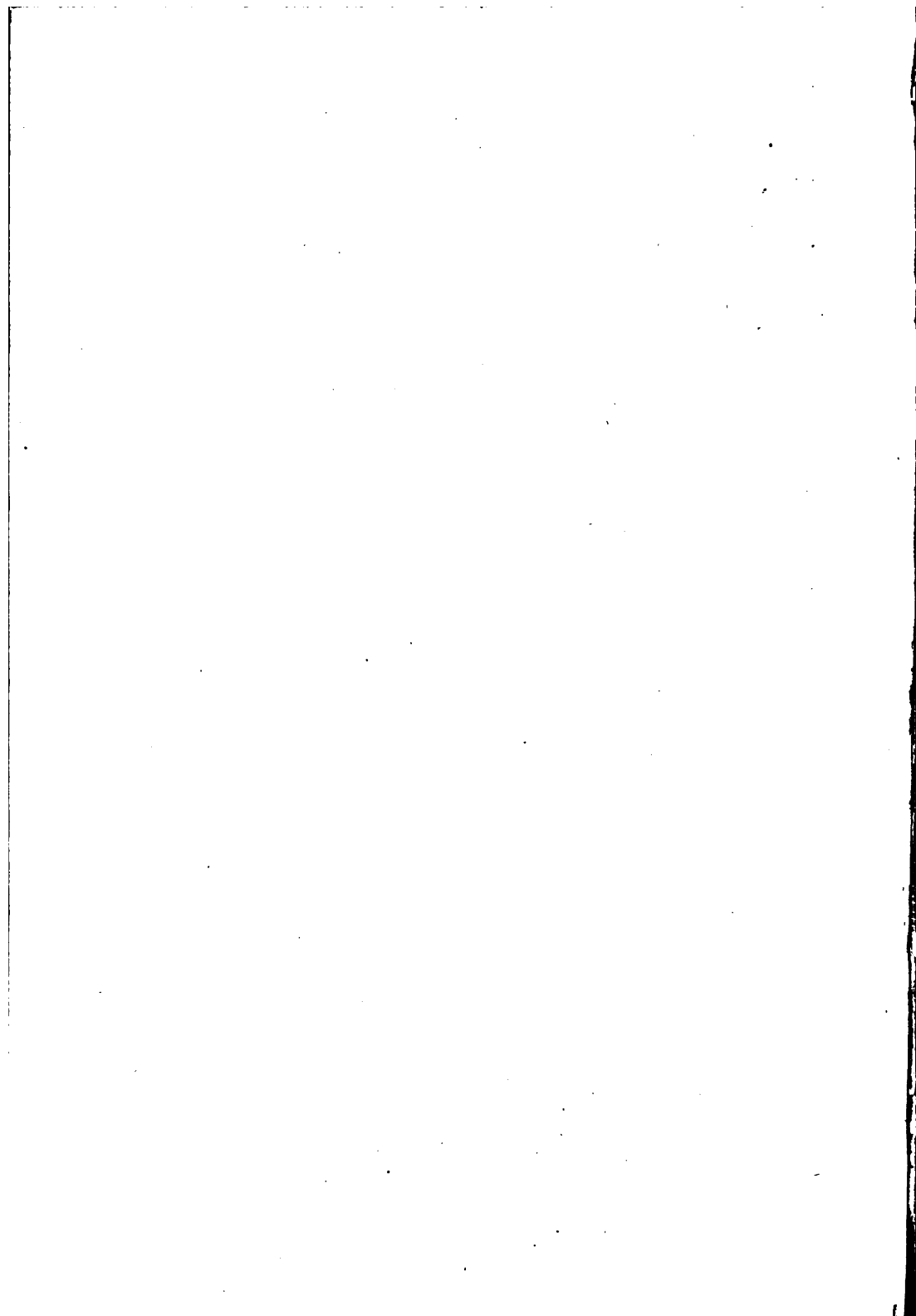
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PRESIDENT ROBERT H. INGERSOLL & BROTHER
AUTHOR OF CHARLTON
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ROBERT H. INGERSOLL

PRESIDENT ROBERT H. INGERSOLL & BROTHER

**AUTHOR OF CHAPTER ON
"JUDGING THE MARKET"**

THE BUSINESS MAN'S LIBRARY

BOOK ON BUYING

**How to Buy Right Goods at the Right Prices—How
the Buyer Works—Retail Buying—Supply Purchasing—Buying
for the Factory—Correspondence for the Buying Department—Systems for
All Needs, Ranging From the Simplest to the Most Complicated—
A Combined Buying and Production Order System**

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CHICAGO—NEW YORK

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1907

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PREFACE

Among the number of subjects which have not been taken up extensively by the progressive business press, is the science which gives title to this volume.

The "Business Man's Library," of which this is the fifth book, is devoted particularly to that class of information for which the business student of American industrial conditions will look for in vain elsewhere. It is now believed—having been demonstrated again and again—that this information is essential to *all* business men as well as to the department manager making hourly use of such specific knowledge, and it has been with this thought in mind that the various volumes making up this group of books have been edited.

But little attention has, up to this time, been paid to the science of buying; this too, in the face of the fact that there is no department that contributes any more to the success of a business than that concerned with the purchase of material, stock, and supplies.

When it is considered, that buying requires not only keen, shrewd, business judgment, but also a vast amount of technical knowledge compactly arranged, it is evident that the systematization of the department of purchasing, too, is worthy of careful research, study, and treatment.

The information necessary for a book of this class

has been drawn from various sources. Practically the only methods available for the buyer who wished to post himself on methods and systems in the past, has been to consult the scattered articles in the business and trade magazines; exchange information with others in his line, and then bring the result of his own business experience to a focus on the science to its mastery. All these methods have been combined in the preparation of this work; all available written records have been consulted, information of great value has been obtained from those actually in the harness, while men of reputation in their line have contributed their experience, withholding nothing that would be of value. All this it is hoped, produces a symposium of means, methods, and experiences, that will be of sure and exact worth to any one interested in the least in the subject.

THE PUBLISHER.

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BUYING

PART I

HOW BUYING IS DONE

CHAPTER I

HOW THE BUYER WORKS

BY G. A. HAMMER

Buyer, The Shaw-Walker Company

It is held by some that there is no science of buying. A better expression of the same thought would be, that buying has not yet been reduced to a science; that the principles which underly it have not yet been formulated and arranged. The fact that these principles have not been tabulated does not change the fact that they are recognized and observed by every successful buyer in the land. If asked to name in the fewest words the general essentials of good buying, the following would be the smallest number that could be considered as essential:

- (1) Common sense.
- (2) Tact in its fullest sense, particularly in reading human nature.
- (3) Knowledge of market.

The first essential, common sense, is one that underlies excellence in all lines, trades, or professions. How often is seen, the vast amount of technical knowledge—as that had by the physician and surgeon—classified and made of worth by the exercise of common sense. How often, too, is seen such knowledge ren-

dered worthless by the lack of good judgment and common sense, on the part of the one otherwise a skilled man. No matter how much technical education anyone may have, it must be balanced by a firm grasp on the fitness of things and the intuitive knowledge as to rights and wrongs of a matter in hand.

This, it would seem, is particularly true in the art of buying. The buyer can not make himself familiar with the details of his art in any other way than by actually coming in contact with it and doing the work that it calls for. This is far different, let us say, than the training of the engineer, who, if he wishes to make himself familiar with the profession of engineering, has but to attend his classes for four years. He is then stamped as a competent engineer, his success depending to a very great extent upon the amount of information that he has taken on in the class room.

Over against this is the training that the buyer must acquire before he is of worth in the field he has chosen. He must depend at all times upon a common-sense view in obtaining his information, at the same time practicing the business which he is learning. He has no library of buying literature to which to refer, other than his catalogues. These lists present little or no general information for his guidance, only the dryest details, the bare prices—no word to inform him whether certain supplies are fitted for his house.

**The Training
of the
Buyer**

A common-sense view of his profession, of the

wants of his business, of the wants of his customers, and of the general conditions surrounding the trade of which he is the representative, all are necessary, not only while he is gaining his apprenticeship, but doubly so when he is in practice.

It may be expressed as final, that the man not well balanced, and thoroughly, and unconditionally gifted with the virtue common sense, is out of place in the buying field.

Tact has been defined as doing the right thing at the right time. This is the comprehensive meaning of the word. In buying, a man may exercise tact in regard to things and persons. In the handling of events, tact in buying calls for the exercise of those faculties which enable a man to keep always on the right side of the market, just the same as a cat always lights on its feet. In the handling of men, not events, it calls for the exercise of that shrewdness which enables a man to be a ready reader of human nature, recognizing its bluffs, being able to call them at the right time, and possessing the rare ability of turning defeat into victory.

Most men flatter themselves that they are able readers of human nature, and indeed it would be difficult to set up a standard by which to measure the average man's ability in this line. The business world—particularly the buying world—is full of finesse. It is always good business to keep hid at times the very thing that the other man wants to know. This knowl-

edge may have an exact money value. It can not be purchased. Tact alone can find the way to discover it.

The man who is not competent to meet his fellow-men without arousing animosities of any kind, or do otherwise than gain their friendship in his business deals with them day by day, is not cut out for a buyer. For men will do for friendship what they will not do for money. And the friendship of a salesman for a buyer to whom he has taken a liking, has often stood in good stead when supposed knowledge of the market would have been a failure.

Knowledge of market is the basis from which the buyer works. He must study it day and night, and

**The Base
of All Buying
Knowledge**

then be positive that he has only an elementary knowledge of the subject. Some one has said that Newton regarded his vast fund of information, compared with the knowledge that was obtainable, as but the pebbles on the shores of truth—the vast ocean lying unexplored and undiscovered before him. This is just as applicable specifically, to-day, as it was generally in his time, and the man who is more than familiar with a small number of prices ruling to-day in the industrial world is rare indeed.

Nor is knowledge of prices more than a beginning of knowledge of market. The mere fact that a certain price rules is no sure guide. The shrewd buyer must look beyond the mere price and must reach into the causes which have made that price, and those that are

material in its remaining at that point. or in causing its fluctuation up or down.

So knowledge of market is a foeman worthy of the best buyer's steel. He can never be sure; he has to work with inexact data. To-morrow, no—an hour—may compel him to change his hard-earned knowledge and revise his entire list of values. He must always be on the lookout for change and prepared to have it find him ready. But the general qualities common sense, tact, and knowledge of market form but the general equipment of the competent buyer. These he must have before he can enter the field at all; he must be equipped with other special qualifications, touching more particularly and peculiarly the business in which he is engaged.

A good buyer must always be a shrewd anticipator. He must take certain facts as a premise, and on these build a future which will *save money*.
 When it is considered how difficult it is to effect this last mentioned result under ordinary circumstances, it will be seen what is expected of the buyer who is instructed to save on his purchases, as though it were no difficult matter. To take prices in the various lines and from them chart out a course which not only avoids rocks, but is the shortest line between two points is a problem of no mean difficulty. Yet that is just what the buyer has to do. He must not only make his port, but make it in the shortest time by the shortest route and have every cent of ex-

Buying
and
Anticipation

penditure thoroughly scrutinized. In other words, he must anticipate his sailing course.

One has but to read the records of Wall Street to see how many men have thought themselves shrewd anticipators and have proved otherwise, their careers coming to an abrupt end because of a wrong reading of industrial signs and tendencies.

The stock requirements of no two firms are alike. Take two businesses in exactly the same line and apparently surrounded by the same conditions; they both have different means of working out their own salvation. The good buyer therefore, has at all times a clear idea in his mind as to the policy of the house, and lets that guide him. All house secrets are laid bare to him, else he is working in the dark. He knows the policy of the house from the broad side, as well as from the narrower laws of supply and demand. These secrets and this policy is rarely betrayed. Considering the many temptations for speculation or graft that are offered the buyer of any firm of importance, the ratio of dishonesty is small indeed. Buyers as a class do not betray the trust in them reposed.

The buyer's system will inform him when the maximum and minimum points have been reached in stock carried on hand, but he must be able to sense the approach of those points and to judge of their approach long before they are reached. From inside information available only to him, he will at times load up his firm far beyond the maximum point. Then, in the case of

similar information, he may buy in small lots and day-by-day supplies, knowing accurately that a change in the market is imminent.

Closely in line with and demanding an insight into the policy of the house is the knowledge of contemplated increase in manufacture, that contracts may be placed with dealers during the quiet season of the year. As opposed to this, it is necessary, too, to guard against overstocking under the temptation of low prices. Low prices are not always what they seem. A low price may be a bid for the unwary to take on a line of "left-overs" that no one else will buy.

A problem more complicated probably could not be placed before a business man. To possess the main essentials of a good buyer so mixed that not one is found in disproportionate quantity, is no small premise to begin with, and the addition of other and more specific essentials makes the man who answers them rare indeed.

Any man can buy at a low price in large quantities. The very fact that a large order is in the market is enough to arouse a spirit of competition and place the order in the light of being bid for. But the buyer who goes out in the open market day by day to get the best price possible generally is not able to offer the incentive of an order of record-breaking size. The secret of good buying is to obtain low prices and that other essential, quick deliveries on short quantities.

Were every firm able to buy in large orders the lot

of the buyer would be made easier in many ways. His detail would be much less and it would give him time to keep better posted on the ever-changing market. His prices, too, would more nearly take care of themselves, for his large orders would present the aspect before mentioned, of being bid for. In other words he would have his orders bid for by the salesman instead of having to bid for prices to him. Even the veriest tyro will realize the advantage this would bring; for instead of the buyer being on the defensive—asking for price—the salesman would be after the order—and often to the detriment of the price of his house.

This ideal condition for the buyer is precluded by the fact that no institution feels like turning over one cent more of capital to their purchasing agent than is absolutely necessary. The commercial reasons for this are so strong that they are seldom or never combated by the buyer. Every institution—no matter what the condition of its finances may be—wishes to keep always as large as possible a percent of capital in “liquid” or “quick assets,” those readily convertible into cash. Therefore the purchasing agent is constantly in receipt of instructions from above to “stock light,” as it leaves the cash balance that much larger. So he must not only convert his suppliers to the doctrine of low prices but sometimes he must contend with the pressure from above tending to restrict his operations by limiting his maximum lines.

The problem of meeting the salesman is no small

one. Here is a man who goes out to sell who is full of the enthusiasm of his line. He has studied it; it may be for years—he may have learned his product as a boy in the very factory for which he is now salesman. His knowledge of his line, is to say the least, not an inexact one. Not only is he prepared to take advantage of his knowledge at every turn, but he—all unconsciously it may be—looks down upon the purchasing agent who does not understand the line which he as a salesman knows from its inception.

The buyer may meet ten, one hundred, or a thousand salesmen, depending upon the size of the firm for which he is buying. With each salesman he must be able to discuss intelligently the various details of the business transacted. This problem of itself is no small one. It is as though the business man had to meet the various professions, attorneys, physicians, engineers, and men of other technical lines, and talk intelligently with each class upon the things with which they are familiar. This is no exaggeration, for the salesman dealing in steels may have fully as technical an education as the mechanical engineer; while the salesman dealing in electrical supplies may have just as technical an education along electrical lines; yet the buyer must be able to deal with one as well as the other.

To-day has been called the age of substitution and the buyer who is not constantly on the watch for adulterations and substitutions of all kinds will soon bring

his house to bankruptcy. Defects must be watched for not only in the sample but in the shipment. The buyer is supposed to be familiar with the finished product of his own house, and in fact to have followed the raw material through its course of manufacture until it has become the finished product, and to have tested the raw material so that it meets the requirements at all times in its history.

This means more than mere familiarity with the essential points and merits of various products and the advantage of one over the other, yet this is where the ordinary buyer stops short. He is satisfied to know the merits of products compared one with the other instead of with the ideal product which should be made a standard of comparison.

Coming to the matter of volume of supplies purchased on the requisitions of department heads, the purchasing agent is brought in direct contact with the wishes of a large number of men, varying in their business viewpoint to a surprising degree. This is nowhere more plainly shown than in the matter of ordering material, or more particularly, office supplies.

Among the thousands of requisitions passing beneath the buyer's eye, it is fair to assume that a certain per cent of these might be done without by the various departments asking for them. The buyer must protect his firm on the one hand and the department on the other. Some men, even the heads of departments, look

**Satisfying
the Department
Heads**

upon the firm as an organization so vast that it should take care of the individual needs of their department, no matter what else is neglected. Each man, particularly if he be an enthusiastic worker, as he probably is if a department head, is liable to regard *his* particular division of the work as the most important, and feels that he is hampered in his occupation if he has a requisition "turned down."

To know for a certainty the needs of the various departments making up a business is a requirement for the buyer, unless he can absolutely trust each department not to requisition more supplies than is needed.

Modern methods call for the "trying out" of all schemes which are to incur a certain expense, as of twenty-five or fifty dollars. But all men at the head of departments have not been thoroughly skilled in modern methods, and in their enthusiasm will put in a requisition for supplies to further a scheme which has not been tried out and which, when tried, may not prove a success. Here the tact of the buyer combined with his general knowledge steps in. He must not antagonize the heads of departments by continually turning down their orders, or he will add to the minor friction with which the business runs, and all business nowadays must be run with as little friction as possible. So to thoroughly protect his company and yet satisfy those making requisition upon him, he must exercise the virtue spoken of before, tact. Knowing the requirements of the material, supplies, or article requisitioned

for by the different departments of the establishment and the use to which it is to be put, he is in a position to demonstrate that his action in turning down a requisition is fair to the requisitioner. So, too, when he passes a requisition he must similarly be able to demonstrate that such action is fair to the company.

This alone should make the buyer a broad man, for no narrow man or one of petty make-up can grasp the relentless and almost endless detail of a vast concern, and at the same time satisfy the management from whom he takes orders, and the department heads from whom he receives requests.

But broadness does not come only from the buyer's dealings with men. His dealings with events alone would make him a man of wide understanding.

A certain institution which desires to explain concisely the broadness of their operations, makes use of the term, "The world is our field." This concise expression is more peculiarly applicable to the buyer than perhaps to any other operative in any of the varied lines of industry. The products which he is obliged to supply his factory are drawn from the entire habitable globe. The whole world then, is his purchasing area, and he must be thoroughly familiar with it. And that familiarity must be exact, as any vague ideas of industrial geography will soon leave their unfavorable impress on the buyer's schedule. The probable effect of war, epidemics, strikes, and similar happenings in remote parts of the world on the home market must be

figured out with such exactness that the firm will not be put to the plight of paying double or triple prices on that account.

The wireless telegraph has brought foreign news as close to us as the news of our own country. The outcome of a battle at Omoso, commanding the road to Vladivostock reaches financial headquarters but little behind the news of a cloudburst in the Red River Valley.

Besides these large questions—important only in general bearing—come the more detailed questions of the various houses with which the firm does business. Outside of trust-controlled products the supplying houses are in a state of continual and relentless competition. The buyer, knowing what supplies he needs, must know just as thoroughly the houses handling his needed line. Then, too, the advantages of not only the local houses over one another, but the houses in other cities; their facilities for delivery; their ability to make their promises good; their reputation for financial responsibility and a thousand other questions must be weighed and considered before an order of any size is given.

From the knowledge of the selling conditions of other houses to their manufacturing conditions is but a step. It is often observed that to-day is the day of production costs, in the meaning that every manufacturer is intensely interested in anything that will give him light on the subject of the cost of the product he

is making. This is very true, and it shows that productive costs in the past have not been correctly determined and that there is now a continual shift in selling prices, owing to changes in estimating the cost of manufacture.

Buying and
the Cost
of Production

The ordinary manufacturer—except in rare cases—can not point to a price and say absolutely that *this* has been the most of production. This is in part due to the complicated methods of manufacture which many articles undergo. But this knowledge of productive costs and prices of manufacture must be had in order to give a sure basis from which to work. The test of a cost system comes when the buyer says to the manufacturer, “So and so will sell me the same thing for so much,”—naming a price less than that made. This means that the manufacturer must pin his faith to the price he has made and not meet the cut.

Now if the buyer is taking on a line where costs may be and are exactly found, he stands no chance of making his point and securing his goods for less money, as the supplier knows his cost point so surely that he is willing to lose the order sooner than sell at what he knows is a loss. But if the article under consideration is not subject to exact cost finding, then the tactics of the buyer may be rewarded.

This shows but one phase of the many sided relations existing between buying and the cost of production. As the science of costs develops, it makes it

harder, to a great extent, for the buyer, because the manufacturer, knowing his exact cost, will not ever go below it. On the other hand, it makes it easier for the buyer by knowing that the manufacturer *has* an exact point from which he works, thus making his selling an exact science, and it is always easier to deal with an exact science than with an inexact one.

The secret of the great importance of good buying lies here: The buyer looks always to the profits of the concern which he represents. A large part of the money made by any concern—large or small—is unconditionally due to the ability of the buyer to purchase the best at the lowest price in the market. Here is the first point at which profits may be made. Here is the first place in business organization that ability may be shown. It is no small thing to reach out in the markets of the world and bring together the varied products which are now necessary to make up even the simplest manufactured articles of to-day. When the task of the buyer, however, is to satisfy the constant demands of a factory or a chain of factories calling for a constant supply of raw material, it becomes a problem vast in size, relentless in its demand for accuracy, and affording no opportunity for the disguise of inefficient work.

CHAPTER II

CLOSE BUYING—WHAT IS MEANT BY THE TERM

BY M. J. CLIFFORD

A close buyer may be designated as one who is successful in getting the best possible value for his money, as distinguished from one who takes what the market affords at the price offered. Close buying therefore, must be judged by the methods of the buyer and these may be broadly stated as belonging to one of two classes.

One class of close buyers uses the following methods: A certain line of goods is offered, for instance, at twenty-seven and one-half cents per yard, the market being firm as regards that particular line. This buyer regards price merely as something to be lowered—a challenge, as it were—and in conformity to his established practice of buying, offers less. This price may vary considerable, but in the case mentioned would probably be from one-half cent to a cent and a half below the price asked. These tactics may or may not win, for if the salesman knows he is in contact with a close buyer he has raised his price accordingly to suit his man. On the other hand, should the price be a bottom one, the buyer has simply tried to call a bluff that did not exist. The probabilities, however, are gen-

erally against the buyer. He will lose more times than he will win.

The "offer system," as this method has been designated, hardly entitles the buyer to the designation "close" or "shrewd." Not only is it unscientific, but one who habitually beats down the price offered him is liable to acquire a reputation for so doing and be always met by a price that may be scaled down to meet his requirements.

A good buyer knows values.

This is the whole sum and substance of so-called shrewdness in buying, and to know values a buyer must know these things:

- (1) Intrinsic worth.
- (2) Time worth.
- (3) Locality worth.
- (4) Process of production.
- (5) Cost of production.
- (6) The buying market.
- (7) The selling market.

Those who rank in the first class of buyers throughout the country have at the base of their buying knowl-

edge, intrinsic worth. It is easy enough
Intrinsic
Worth to sit down and figure out the probable or
 inflated worth of a product, line, or
 article; but to be able to sense—either intuitively or
 scientifically—the intrinsic value, the true worth of
 the product under exact or adverse conditions is one
 that determines the capability of the buyer. The ability

to sell much above the intrinsic worth often renders this knowledge of much less value than might be supposed. Modern advertising methods at times depend so little upon the real value of what is sold and lay so much stress upon salesmanship, that intrinsic worth is sometimes lost sight of. This applies but little to the staples, as a knowledge of their intrinsic worth is an absolute guide to the buying in the staple line.

True, the buyer may often keep his eye on the sales department of a profitable line and relax his efforts when purchasing goods upon which there is an extraordinary or unusual profit. This is excusable from one standpoint but not from another. The buyer may take the stand that he has not the time nor energy to waste in lowering his buying prices on a profitable line; in this he may be correct. But when he insists to others or assures himself that this is good buying, it is then that poor buying manifests itself; for it is the duty of the buyer to buy his profitable lines close as well as his staples, for the staples may be sold at a comparative loss which should be made up in part on the close buying of the profitable line.

Time worth, as a factor of good buying, may be of primary or secondary importance. It is of primary importance in certain lines, where the value of the product purchased depends upon its being placed on the market within a certain time. Leading examples of this will be found in the commission line or in the buying of

Time
Worth

perishable hotel or restaurant supplies. Where a buyer, as one for a restaurant, buys his supplies from day to day, it does not require a vast amount of judgment to determine time values. But where the country buyer places his orders in the summer for the winter trade, it requires almost the powers of divination to take on a line that will be such that it may be advantageously sold several months from the time of ordering.

Were there some exact means for determining, for instance, whether a locality was to be subjected to an "open" or an "old fashioned" winter, the work of the buyer for a house depending to any extent upon time worth—as does the retail clothing dealer—would be greatly simplified. The clothier is indeed fortunate who has a buyer who has judged accurately the amount of stock to be put in to meet a season's demands; who comes out in the spring with a minimum of heavy goods that he has to carry over; who sees winter approach knowing that his line of depreciable light goods to be kept through the winter is small.

Locality worth is an important factor to the buyer. This general statement is as true in the country as in the city, but the country buyer is not handicapped as is the city buyer. The ordinary buyer for the country store does not handle anywhere near as large a line as does the man in the city. The oft repeated statement is, "The country dealer knows his trade." To a certainty this is so, as he can judge with comparative accuracy what

Locality
Worth

trade he is to secure for any reasonable length of time ahead. Perhaps ninety per cent of his customers he knows by sight, and he is a poor man if he can not call eighty per cent of them by name. Of all the variations of locality worth, he is certain. If he is obliged to change the location of his store a large part of his old trade will stay by him; the surrounding country is not subject to rapid changes, and most of all he knows the price obtainable for or the true worth of the goods on display at his place of business.

The city buyer, however, is not so protected. While he becomes a better buyer—more adept in his line—from handling a large volume of goods, he presents the anomaly of doing better and closer buying and yet securing poorer results than does the country man. He is by no means in as close touch with the selling end. City trade is and is bound to be more or less of an enigma, especially to the retailer. Only the oldest and most firmly established houses can judge accurately what trade is to be had for a certainty for any reasonable length of time ahead. A fire may occur in the neighborhood and change the entire vicinity as regards trade, the same effect may be brought about by the erection of a new building. One of a dozen minor causes may cause an entire shift in the personnel of his trade, if he stays where he is. In many cases he is subject to a forced change on account of a raise in rent and this change will probably carry with it a complete shifting of the class or quality of trade to which

he has been accustomed. Each separate article of goods has its display value when on sale, and this value differs in various locations. The buyer who knows locality worth on all his stock is therefore enabled to save in various ways, the principal one being, not that he secures a line at the lowest possible price, but that he secures a line that may be disposed of to the best advantage, in the locality where it will be put on sale.

A knowledge of the various processes of production—particularly for the buyer of a special line—is at all times of importance. Owing to the great number of processes to which even the simplest products are now often subjected, it is not possible for the general buyer to keep himself thoroughly posted on this important requirement. But the buyer of a restricted line can at all times inform himself through the traveling trade or technical journals, and from other sources as to present day methods and processes.

Related to the processes of production, is production cost. Nowadays, when exact costs are, or should be kept, a knowledge of the exact cost of production is a part of the information possessed by every factory putting out a line of goods. Unless a buyer has at some time been engaged in the particular line which he is now buying, it is more than probable that he can not obtain very definite information as to the cost of producing a certain line of goods. The best buyers, by knowing the progressive stages of manufacture, from

the raw material to the finished stage, and by knowing the relative cost of these operations, are the ones who stand at the head of their profession.

A knowledge of the amount of profit at which a line is sold is almost essential, for the factory cost alone is not enough to guide the buyer. In factory costs, to the cost to make and sell is added profit, this sum giving the price at which the product is placed upon the market. Any cut in this price, therefore, cuts into the profit, and it may be given as a truism that the greater the profit on a line, the better chance the buyer has of hammering down a price, unless it be controlled by a trust or a working agreement.

Knowledge of the buying market is so related to knowledge of the selling market that the two—though calling for perhaps entirely different faculties—must necessarily be considered together. It is only by study of what the market has done, and particularly the “why” of its so doing, that the buyer is enabled to procure the best results in his work. With the exception of trust commodities, there is a reason for fluctuation in price. According to authorities who have studied the subject, trust prices are varied only as it is deemed advisable by those manipulating the trust. But the price of everything else, broadly speaking, may be said to be governed by the laws of supply and demand. Certain of these laws may be observed until they become comparatively familiar, and lines may be studied in connection with

**Knowledge
of the
Buying Market**

the demand or the supply, so as to determine which lines are liable to rapid or erratic fluctuations and which are governed by rule.

It is to a great extent, a matter of opinion as to whether what is commonly termed "the buying instinct," may be attained or whether it is inherent, a knack, so to speak, existing in the person himself. This is best answered by the fact that buyers holding the most responsible positions throughout the country are there because they have used scientific methods in purchasing. They have not relied on inherent knowledge but on that which is acquired. Different degrees of capability naturally exist in different persons, but positions of importance in the buying world have not been attained as the culmination of a period of hammering down prices by bidding lower than the one asked, but by a knowledge of values judiciously applied.

Close buying, therefore, means the exercise of scientific methods so as to purchase anything at a fair buying value, in amounts so distributed as to leave a small percentage of odd stock or leftovers, and is only acquired by the most broad and comprehensive knowledge of the subject, obtained from combined study and experience.

CHAPTER III

SOME OF THE ELEMENTS OF SUCCESSFUL BUYING

BY FRANK B. LOMAS

Of Thomas J. Lomas & Son, Cresco, Iowa

The man would be sanguine—or inexperienced—indeed, who would attempt to list all the elements which go to make up successful buying. In common with other arts of equal importance, the experienced man finds that he has not advanced as far in a thorough knowledge of the elements, even, of the work he is daily practising as is necessary to ordinary efficiency. The buyer who does not get tripped up now and then in his work is a rarity indeed, and such event, when it comes, is more often the result of the neglect of the elements of the art than from any other cause.

In every line of business dependent upon selling, the importance of good buying is adequately recognized. While there is a tendency on the part of the salesman to define *his* work as that of the man “who keeps the smoke coming out of the factory chimneys,” and to always carry the idea that *he* is on the end that brings in the money, yet the relative importance of selling and buying is no more clearly shown than by the fact that incompetence or inability on the part of the salesman

may bankrupt his firm; on the part of the buyer it is *sure* to.

There are perhaps as many methods of buying as there are buyers. In what is perhaps one of the leading mail-order houses in the United States, the manager may be quoted as saying:

"To be frank, our men have no real methods in buying. The only requirement is that they *show results*. Some effect this desirable end one way, some another."

In the same lines and particularly in the country store, different buyers have different methods. The haphazard buyer takes on his stock as opportunity offers; he has no plan in his work, but merely buys from day to day and week to week as the traveling salesmen visit him and he has the opportunity. He does not make use of the knowledge that is open to him, but works into a rut and settles there.

To avoid uncertain and unprofitable results, the buyer needs a sure point from which to work. He finds this in the perpetual inventory or some modification of it. An inventory is a record of the past. It shows what has been bought; it shows what has been sold, and consequently what is now on hand. The inventory, therefore, is really the base from which the buyer can work. It does not show theories or probabilities; it shows facts.

It is sometimes thought that to know values is about all that is required of the buyer, but this knowledge of values is simply one of the elements in a general

group. Besides a general knowledge of values and of much more use because of its application, is a specific knowledge of stock.

To show what importance is placed on a knowledge of stock it is only necessary to note the methods used by department stores. The buyer of a department store is also the manager of the department for which he buys. The main reason for this is not the success of his department, as might be supposed, but his success as buyer. Only when he thoroughly understands the needs of his department—and this can only come about by coming into actual contact with it—can he familiarize himself with the needs of it from the separate standpoint of the buyer.

It is only when the buyer is a progressive business man and has thoroughly studied his business, that he can be successful in the buying field. That he knows the underlying principles of commerce and trade which lead up to certain prices being asked for a certain product, is important, it is true, but at times such knowledge is rendered worthless by inexact stock information.

This study of stock and knowledge of it is much more thoroughly appreciated from actual contact with it and is at all times facilitated by a constant use of the inventory.

Having things down in black and white is the surest method of obtaining accuracy, and a comparative statement of sales by days, weeks, months, and

years, and a similar comparative statement by use of the perpetual inventory or some modification of it, allows the buyer to see what are the possibilities of the future from the records of the past.

Coming to the factors which determine the amount of goods to be kept on hand, this is found to be subject to many modifications. The two principal factors which effect these are the amount of capital that may be invested in the business and the per cent of depreciation that may be relied upon to affect the stock. When a firm has plenty of capital and has a reserve to draw upon, the buyer does not need to take on his shoulders any of the financial worries that belong elsewhere; he is left free to buy as he chooses. But when it is an absolute essential that no risks should be taken that will in any way cause trouble because of a limited capital, a different phase presents itself.

Nearly every buyer has his standard as to how often certain classes of goods should be turned during the year and aside from this he may be obliged to shorten up the time on various lines, so that the amount invested may at all times be kept at a minimum. By taking advantage of a marked upward tendency of price in certain lines at certain times, heavy buying may be warranted, but the fact is always present that depreciation must be considered in connection with the probable advance.

Depreciation is defined as a lessening in value be-

cause of age or contributory causes. This lessening may or may not be met, according to the nature of the goods handled. There are certain lines in which this factor is so small that it hardly needs to be considered, if at all. In other lines goods must be disposed of immediately or they become useless. As an example of the first may be considered diamonds and jewelry of standard patterns. The restaurant or hotel man is at the other extreme and must dispose of a large portion of his product before even a hint of depreciation has set in.

Besides the regular depreciation which may be calculated for a certainty, the retail dealer especially has to reckon with another form. The proprietor of one of the large department stores of the Middle West, in speaking on this phase of the subject of depreciation says:

"There is one form of insidious depreciation that the buyer often is at a loss to meet successfully. In a large department store there seems to be present a form of intangible lessening in value of the stock, that resists ordinary methods of calculation. The proprietor is liable to find after an interval of five or ten years that he has made a certain profit, it is true, but that unexpected sacrifices partly counterbalanced such gains.

"I have given this subject considerable study and I believe that the merchant should acknowledge to himself that it is the fault of poor buying. The buyer—whether he be an employé or the proprietor himself—

does not get a stock of goods that will sell as close as required. His leftovers absorb a good share of his profit.

"A certain per cent of non-salable goods stamps a stock of goods as 'poorly bought,' and should be corrected not by the special sale, as is often the method, but by better buying."

A successful buyer for one of the large Eastern department stores may be quoted as saying, "The buyer, if he be a success, needs the same mental outfit in part as the weather prophet, only the buyer must forecast trade conditions instead of the weather alone."

This statement is one in fact that is worthy of consideration. There are men who are able to plan ahead and have an intuitive sense of futures. They are able to take present facts and build future facts upon them. Such men make good buyers. Some have this sense intuitively, others acquire a certain facility in it only by constant practice.

One essential of good buying is that the merchant do it himself if possible, that it not be entrusted to others. This statement may be, and in fact is, disputed by a large number of business men. Such men hold that the retailer is primarily a salesman and point to the fact that now, never as before, every man connected with an institution is regarded as a unit in the selling force. Such being the case, if the proprietor—a salesman—acts as a buyer he must sacrifice one or the other, as

**The Merchant
Should Do
His Buying**

the requirements for good buying and good selling are not allied and call for the exercise of such different faculties that few men can possess sufficient broadness to successfully accomplish both.

While the sciences buying and selling may be said not to be allied, yet both require a great deal of knowledge in common. But the buyer looks always for worth and the salesman for selling quality. In some cases these are synonymous—more often they are not.

This view has many supporters—particularly among men who are active and enthusiastic salesmen and who are running a business employing fifty or more people. The merchant who has a smaller store feels that to be in satisfactory touch with the business he must do his own buying—not intrust it directly or indirectly to anyone else. This comes from the desire of every competent business man to “run his own business,” and he feels that the place to begin is at the logical point—the buying department.

The ways in which the merchant can turn over his buying to other hands are three in number, one of the number being direct and the other two indirect, and are:

- (1) By having a buyer.
- (2) By doing the buying himself and buying at the suggestion of the traveling salesmen.
- (3) By letting his supplier stock him up.

Where the work of buying is turned over by the proprietor to a store buyer, unless there is a thorough

understanding of the possibilities of the business, the principles on which it is run, the ideas which the proprietor wishes to carry out, and the thousand and one other details, there is a strong possibility that the proprietor will find the house buyer running antagonistic to what the policy of the house demands. True, it is often a fact, that the proprietor has not the time and fears he has not the buying knack necessary to perform the important work of the buying department, but it would seem advisable, whenever the size of the business permits, that such an intimate knowledge of stock such as can come only from a buying knowledge of it, should be had by the proprietor.

**Having
a House
Buyer** The traveling salesman is often the buyer for the house. This statement, upon analysis, is not as anarchistic as it appears on its face. Many a buyer thinks he is doing the buying for his firm when really he is only taking on those lines of goods that the salesman sees fit to sell him. Many will call to mind the old-fashioned cross roads store where the salesman drives in, studies the sales book carefully—sales usually being jotted down in a counter-book or on a blotter—sizes up the stock, asks a few questions, and then proceeds to stock up the store as he deems advisable.

**Buying
and the
Traveler** This same course is pursued—though in a less degree—by the traveling salesman when he visits a certain class of buyers. Such buyers always stand in the

light of asking, "What do you think it advisable for me to buy?" and the salesman, as his judgment is good or bad, proceeds to answer the question, rightly or wrongly, for the buyer by putting him in a stock of goods.

A great number of times the buyer may think that he is conducting his purchasing, but the fact is that he daily meets such excellent salesmen—salesmen who are much better exponents of salesmanship than he is himself of buying—that he does not take on a stock because of his own efforts but because of the efforts of the man selling him.

It is at times a question whether it is better for a man to do a thing himself and do it poorer than it would be done under other conditions, or to allow some one else to do it better for him. If the salesman really has a better knowledge of sales conditions and the market than has the buyer, the latter should yield to the former and take the complete knowledge of the salesman—even with his wish to sell—rather than his own incomplete information. However, as a general proposition the buyer should use the salesman as a means of information only, not let him "do the buying."

The third phase, that of letting the supplier stock up the store is unimportant specifically, but of great importance in a general way. It is almost an absolute impossibility for a man, no matter how competent he may be, to sit at his office desk, and so thoroughly understand the local conditions of a business a few hundred miles

Buying
and the
Supplier

away, as to be able to supply the demand of that business intelligently. There are no two country businesses exactly alike, and it is only possible for the manager of one to realize the many modifications affecting his store and the peculiarities a part of it, to know that it must be managed in all its parts from "the inside."

The wholesaler may often bend energy to stock his trade with something that they can not turn to advantage. The wholesaler does not know it—he does not know local conditions—but the buyer is liable to be carried off his feet and get a number of lines of goods in stock on which he can never realize. This is purely and simply because the supplier is a good enough salesman to sell the retailer goods he does not want, and many a retail business has been wrecked upon this rock.

CHAPTER IV

BUYING IN THE RETAIL STORE

BY H. A. BARCK

*Secretary and Treasurer, The Model Clothing Co.,
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As an outcome of the experience of nearly every successful retailer, it must be accepted as truism that good buying is not only an essential but is one of the most absolute requirements of any of the many requisites going to make up success in retailing. Nowadays, when the retail merchant is subject to the competition of the department stores, city catalogue houses, and the mail order departments of regular, manufacturing, or jobbing concerns, it means that he must buy close in order to sell as close as his patrons demand. The day of large profits in the retail business has to a certain extent gone by, and with it loose methods of buying.

Careless or inefficient buying is the first place that inefficiency in business has a chance to show, and the buying department is the first place to be subjected to scrutiny when, for any reason, there seems to be a falling off in the customary profits, sales remaining normal. This department is sometimes overlooked as being in fault when a business is subjected to scrutiny to reveal leaks of any kind, and for this reason:

It is difficult to make comparisons of the buying

prices or methods of one business with another. A merchant may feel that his buyer is getting poorer prices than a competitor, but he has no means of proving it. If the proprietor himself is not doing his own buying he can only go on the supposition that the buyer does or does not understand his business. There is, in all probability, no means of demonstration at hand.

The requirements necessary for a good buyer are not, strictly speaking, many, but they call for thoroughness and efficiency in the particular line in which he works, and make up in individual importance what is lacking in number.

A thorough knowledge of the goods bought is the primary essential for a good buyer, so as to be able to determine immediately whether the quality of the goods on display in the sample room is such as calls for purchase. For, should the buyer in meeting the salesman show that he is not thoroughly master of his work, the salesman may be ordinarily relied upon to do one of two things; either lift the price or attempt to load him up with a line of goods which are not best suited to his trade. This is not uniformly the case, but it is often the result of ignorance on the part of the buyer for the retail house. Then too, the buyer should at all times be an experienced salesman. It is possible that he may be, and often is, too sanguine as to what will sell. The goods offered or on display, look good to him and he is, perhaps, over sanguine as to how easily they may be

Knowledge
of the
Line

disposed of. Or perhaps, a buyer who has not had actual experience in selling is not aware of the possibilities of good salesmanship and will be skittish about loading up his firm, and so have a tendency to buy short.

The novice can be intrusted to sell, but he never should be allowed to buy, as experience in the buying line costs more, perhaps, to secure, **Buying and Salesmanship** than experience in any other department of the house. The salesman, in these days, in order to hold his position is usually an expert in the art of selling. The principal houses are fast getting away from the idea that a salesman is not obliged to have careful schooling and systematic training. As a result, the salesmen now on the road are much better sellers than ever before and the inefficient or amateur buyer is much more liable to take on a line that he can not handle, through their persuasion, than ever before.

This aspect of salesmanship; i. e., the effect of good selling on the buyers, is one that is seldom or never touched upon in current business literature.

When salesmen are being constantly trained for efficiency, we hear little or nothing about training the buyer to resist the blandishments of the finely trained salesman. What the "natural-born" buyer will do under fire of the "scientific" salesman making an approach psychologically perfect, will probably be determined in the future.

If the firm is so large that it is impracticable for the buyer to sell in the various departments of the house, it will be necessary for him to keep in constant touch with the salespersons in the various departments, watching carefully the various sales from day to day and mentally noting what class of goods seems to be in demand, and most of all, watch what goods are held upon the shelves, later to be sacrificed at a financial loss. Held over goods, or those not turned over within a specific time, show—if not actual incompetency on the part of the buyer—at least poor luck in buying.

There are two methods of keeping in touch with the departments, one by means of interdepartment correspondence and reports, and the other by actually meeting the conditions of a department by taking up the work there. No condition of trade is too slight to be of interest to the buyer. But the salesperson may be too busy to report or may not recognize the importance of a piece of information. The ideal condition would be one in which the buyer could spend about one-half of his time in the departments, and the remainder buying. A good buyer is enabled to sense how things will sell by observing how things move off. It is one of the yet unexplainable things of life, that in many trades, a large number of operations are governed by instinct.

For instance, there are few credit men who do not resort to instinct—intuition might be considered a

better word—at times to determine whether to extend a man credit or not. While few buyers will admit that a “hunch” ever governs their mental operations, yet it is undeniably true that at times it is necessary to trust to intuition as to whether to make a purchase or not. This intuitional faculty is generally correct only in the light of experience, from which the intuitional faculties can make deductions later to be known as a “hunch.”

**The
Buying
Instinct**

The wants of the business on the one hand, and the wants of the trade on the other, are all the time kept in mind by the buyer. When these are, as near as possible, coincident, it is then that good buying is exercised.

Immediate wants are shown by the want book, which should be kept in one of various ways. The old way and one that is still kept in use by various houses, is to have a book kept in a convenient place so as to be readily accessible to all departments. When goods are running out or fall below a certain point—call being made for them by the trade—these wants are recorded in this book.

**The
Want
Book**

The general advantages of card systems over the old book methods are the ones that recommend the use of the former in lieu of the latter, in making up and recording wants in the store. The main disadvantage of the old want book was that the wants were not so

arranged as to facilitate proper attention, but were put down in rotation as they came up. A better way is to

**Advantages
and Use of
Card Systems**

have every salesman provided with a set of cards ruled up for this purpose so that immediately upon the call for any particular article this call may be jotted down, the card turned in, and then filed under its proper head in the want files, which the buyer, of course, will watch carefully. The salesman should take a duplicate of his wants, so that in case another call is made within a reasonable length of time, that it will be shown that he has turned in such a report, and he will consequently not be held responsible for its absence in the stock.

Besides that class of wants coming from calls of buyers, there will be warning reports from the sales force that certain lines are approaching or have approached the minimum line. Both maximum and minimum lines on stock should be maintained, the sales force reporting by card when the minimum line is approached, these want cards to be filed in the want files for the information of the buyer.

It has been assumed so far, that the business for which the buyer is getting his goods is already in existence. Where a new store is about to be started the buyer has before him a different proposition than that which confronts the buyer for an established house or firm.

There are various methods of making up a buying list for a new store. One having the unqualified en-

dorsement of a large number who have been through the mill is as follows:

The buyer familiarizes himself with the trade which is to be sold to when the retail store is started.

"Learning by Doing" He then posts himself very thoroughly with the routine of buying and selling in a store handling similar lines, in a similar situation, and having approximately the same class of trade as the store for which he is to buy. There are various ways of doing this, which will occur even to the unexperienced man. The prospective retail merchant may have friends in the same line, in a district which will not be subjected to his competition, and who will be willing to give him all the assistance that is possible.

Then, too, the various trade papers and other trade literature, may be consulted as to what assortment of stock should be put in, under the circumstances in which the prospective merchant finds himself. One thing is certain, however, if the future merchant or buyer will spend a month or so in some store as an employé, where he can see the exact workings of the business, it will be time well spent.

To generalize, it is better to take bodily a scheme of some successful business and apply it as it stands, the necessary modifications being made as time and experience demand, then to attempt to originate any novel scheme of merchandising or buying. While it is a laudable de-

Advantages of the "Ready-Made" Scheme

sire for every man to conduct his business "his own way," yet it will surprise any investigator to find how thoroughly the problems of merchandising organization have been thrashed out. As a result, real improvements come by building on the experience of others, taking the cumulative result of a large number of experienced men, and modifying that experience to conform to the personal ideas of the manager.

Therefore, if the man who is to do his initial buying should follow closely along this natural line: Take boldly the buying scheme of some experienced man; use it in its entirety until he is sure as to its weak and strong points, and then retain the strong points and substitute others for the weak ones. If he follows this plan he will invariably have a satisfactory system—satisfactory because it will yield results and at the same time bear the personality of the user.

Another plan not to be so highly recommended, is to make up a general scheme for the class of goods needed, and stock up as advised by the traveling men selling those lines. The only weak point about this is, that unless the buyer has an excellent acquaintance with the men who are selling him goods, he will be very liable to overbuy, and be especially liable to take on a stock which he can not turn to advantage.

Traveling men generally cover a large territory and know exactly what lines are selling, and can put in a stock that will sell as desired, but this knowledge

**Taking
the Traveler's
Advice**

is offset by the fact that they wish to sell as large a bill as possible and will often not hesitate to load up the buyer, hoping that he will get rid of his stock somehow.

The buyer who wishes to make a success of his business naturally wishes to gain as much information as possible on the subject of buying. Unfortunately—buying not having been reduced to a science, as has selling—he can not delve very deep in the underlying principles of the art and he must confine himself to general factors rather than specific ones.

The most general factor that affects the buyer is the matter of markets. The best guide to markets is invariably the trade papers. The trade papers in the United States are, as a class, of excellent value, and can not be done without by any one interested in the lines these periodicals represent. Not only are the general conditions affecting the market given, but many of them give the market reports of trade articles.

Besides the trade papers, catalogues and circulars sent out by jobbers, will be put in constant use. These should be kept so arranged that they will be available for immediate reference. By consulting any detailed article on buying methods for filing catalogues may be found.

At this point the efficacy of the business letter comes in good and strong.

It is a well known fact that the best, or bottom prices are not always quoted in the circulars and

catalogue lists. When the buyer is about to forward his order by mail, he can have it made out in duplicate and submit it for an estimate, to the various firms in the same lines, stating, of course, approximately, what he expects to take on. If he asks the bottom prices, and specifies the terms which he wants, he often may be able to take advantage of a temporary change in the market that otherwise would not favor him, particularly if he is buying for cash. Then too the jobber, knowing that he is about to buy a good bill and pay cash for it, may need to turn his stock just at that time and as a consequence will make him a satisfactory price.

It is generally the experience of the buyer that if his firm rates well enough financially to pay cash, that he has one of the best levers obtainable in securing bottom prices. There is one thing sure, that the buyer should see that the bills and collection notices of the houses from which he buys are met and replied to in the most businesslike manner possible. If these are not given the attention that they demand the buyer will often find himself handicapped in his fight for low prices, when the fault is that of the remittance end of the house for which he is buying. When the buyer is making every effort to get a satisfactory price from his suppliers, he must not overlook the fact that the supplier must be given proper attention the exact moment the bill is due.

Buying
For
Cash

Help From
the Collec-
tion End

When the salesman, too, knows the buyer's firm is rated prompt pay, he is more liable to go the limit on low prices, to the consequent benefit of the firm.

One of the principal funds of information, from which the buyer may draw, is that possessed by the members of the traveling fraternity. If the buyer at all times treats the various traveling men upon whom he depends for

**Treating
the Traveler
Right**

his goods, with the greatest consideration, being perfectly frank with them at all times—in other words, treating them as he would like himself to be treated—he will find it a master stroke of policy, as well as feeling better satisfied with himself for so doing.

This advice would seem superfluous, were it not for the fact that in so many houses the buyer for the house treats the traveling man as though he were an unmitigated nuisance. This is a most shortsighted policy, because it stands to reason that if day after day the traveling man is subjected to needless humiliation, that he will not fail to do as few favors as possible to the buyer who makes his work hard for him.

The matter of quotations is one that is of peculiar interest to every buyer, because it is here that the ethics of the profession of buying find strong application. It is the wish of the buyer to secure his goods at as low a price as possible. Similarly it is the wish of the salesman to obtain as much as possible for what he has to sell. It is also human nature for one man to attempt to

**Quotations and
the Ethics
of Buying**

meet the price of another and go him one better. But the quotation of one firm, or one man, should not be used to hammer down the price of another or others.

The ethics of professional buying call for the exercise of the strictest confidence regarding the prices of another. The temporary advantage that may be secured by getting a lower price on a line by using one house's price as a means of lowering the price of another, is bound at some time to make trouble for the buyer or the trade for which he is buying.

Finally, it may be said that the buyer for the retail store has need of that broadness of comprehension and wideness of view so necessary to the successful man in any walk of life. At no place in the merchandising organization does initiative count so much as here. Buying—the initial art—is really the foundation on which rests the entire commercial fabric of the store, and the times call for breadth as well as solidity.

CHAPTER V

RESTAURANT SUPPLY PURCHASING

BY O. B. STIMPSON

Manager, Saratoga Restaurant

The ordinary difficulties of the purchasing business are intensified in any line which caters to the tastes of the public. This statement may be considered aside from the fact that every man thinks his particular work the most difficult. The problem of an ordinary buyer or purchasing agent is so simple beside the complicated work of a restaurant buyer that the two are only to be compared as are a weekly newspaper and a metropolitan daily. On a country weekly everything is "news" that is not over two weeks old, while the daily has to be "up to the minute" or it can not live.

Similarly the ordinary buyer has time in which to order, judge, and place his stock—which the restaurant buyer does not have. A large per cent of the goods purchased for catering are perishable; they must be bought, cooked, and served within a period of forty-eight hours or they become a dead loss on the hands of the buyer. When it is realized that the average purchasing agent does not have this factor at all to contend with, it will be seen that restaurant buying demands more judgment, a better eye to probabilities of

trade, and a more thorough understanding of the goods handled than perhaps any other line; certainly any other line of such magnitude and importance.

Certain classes of goods as clothing, boots and shoes, and the like, may eventually go out of style, but the buyer has time in which to turn his goods; he is not ever confronted by the alternative of a consignment being made worthless on his hands, as by a few hours unexpected change in temperature.

Then too every other buyer has some standard besides his own experience as a guide. Suppose a man is buying supplies for an electrical works and wishes to take on a supply of copper wire. There are a large number of facts about wire that are standard. A wire of a certain size will stand a certain strain, will conduct a certain current, will wear a certain number of years, and—to express it briefly—is a known factor. If it is not—because of size or alloy or some other modification—then it can be tested and its relative value determined absolutely.

Not so is the buyer of restaurant supplies situated. Different restaurants cater to different classes. Their patrons are changing from day to day and year to year. Not only does the class of trade change but the individual tastes of the customer change. And worst of all there is no means of testing supplies so as to be sure the trade will be satisfied. *There is no standard.* That is the difficulty in a nutshell.

Shifting conditions; shifting trade; shifting tastes;

these all call for a vast amount of detail experience and past dealings with the variable public taste that will be looked for in vain in other lines.

Besides the perishable stores before mentioned there is, however, a certain per cent taken on by the restaurant buyer which is not perishable. These stores are bought in large quantities for two reasons.

The first reason is because of the fact that large purchases leaves the buyer more time to attend to his perishable goods than he would have were he to buy his non-perishable goods in small lots.

The other reason, the more important of the two, is perhaps found in no other line. This is that a con-

Large	consignment of stores—such as canned goods
Lot	—if bought in too small lots may be pur-
Purchases	chased, delivered, cooked, and brought to

the table without a satisfactory test having been made of their quality. This means that should they be faulty it will not be determined until the customer himself finds it out. This would react against the trade in various ways, the two principal ones being that the patron has been done a wrong, and the second one is that the entire consignment, not being up to standard must be returned, throwing a great deal of extra work on the buyer and producing general dissatisfaction.

Now when a large consignment is purchased and in the store room, it may be thoroughly tested and when found of standard quality, the manager, when that article is placed in the bill-of-fare, served, and placed

before the guest, *knows* that it is of good quality. When it is considered that in the restaurant trade the percentage of uncalled for "kicks" is innumerable, it will be seen that an absolute knowledge of the quality of all supplies is essential to the successful management of a restaurant. Indeed several restaurants in the city have made failures because of this fact, in the past few years.

Besides this reason last given, there are other important ones. Buying in large lots enables the buyer to take his discounts for certain quantities and what also is an important item, to have his goods delivered at less cost for cartage, he being particular to make each purchase a full lot, thus saving a decent per cent of the cost, on the item cartage alone.

The matter of tests can be exact as to quality—as to whether a line of supplies is good or bad—particularly in perishable goods, but it is always difficult determining which of a number of supplies, all up to quality standard, will please the public taste. There are many goods which must depend to a great extent for their successful sale, upon the judgment of the buyer, as to what public taste demands. It may or may not be a question of quality or price, for sometimes supplies not above standard quality and comparatively low in price may be preferred by the patron left entirely free to select.

It is impossible for the most experienced buyer to know all that is required of his various supplies, as

Quality
Tests

each one has been made a specialty by the producer, rather than by the handler or buyer, and the producer is always willing to concede that there are things that he himself may learn about his line. An instance of this is shown in buying coffee. The experienced salesman has made a life study of various coffees and knows the exact blends which must be made in order to make a suitable grade for consumption.

Now, the restaurant manager or buyer knows to a certainty good coffee when it is made, but he may not know the proportion of the blends necessary to make the grade he wishes. That may be a trade secret. To take on a satisfactory grade the buyer must either trust to the judgment of the salesman, his own judgment, or restrictedly, to the judgment of his patrons. Should he trust the salesman, the result will be direct and immediate. He has but to give the salesman to understand that he wants a satisfactory blend—one having certain qualities and similar to another grade—and the salesman, if he be an enterprising man, will try to outdo himself in satisfying the buyer.

Should the buyer trust to his own judgment, unless he has a vast deal of experience in coffees, and knows practically as much about them as his supplier—which as before said is almost a physical impossibility—he can not buy through the exercise of his own knowledge but only by using that of the salesman and the producer.

Whose
Judgment
to Trust

To do this may require considerable diplomacy. This diplomacy comes only of experience. A buyer must always keep in mind that the salesman wants always to sell what he has and what he can make the best profit on. The buyer must therefore not trust too much to the salesman's advice or this eventually will lead to the purchase of those supplies which afford the supplier the most profit.

Frankly, the judgment of the patron is not to be depended upon except in rare cases. If the buyer is to be influenced by or trusts to the judgment of the patron, he hears so much contradictory evidence that he is thrown back to his own resources or to those of the salesman.

In certain lines—as this just mentioned—it is advisable to take the word of the salesman. In others, the buyer himself must be the only judge, and post himself—if he is not competent as judge—until he is. Rarely is it a necessity to take the judgment of the patron in its entirety.

So far has been spoken of only perishable and non-perishable supplies. Modern refrigeration methods introduce another class—that of perishable supplies made non-perishable while in storage. This simplifies the buyer's work in one way and complicates it in another. It makes work much simpler by preserving stores and so permitting their purchase in bulk instead of in day-to-day lots. This helps greatly in reducing the volume of the work.

**The
Cold Storage
Factor**

Indeed, it is not plain how the modern restaurant could be run without an extended system of cold storage. But buying for storing and handling stored products, both call for a knowledge of futures, and when it is considered that such knowledge means the almost intuitive ability of the successful speculator—and not one man in a thousand is successful in speculation—it is easy seen what this one point alone calls for. The requirements of the restaurant buyer are enhanced by the fact that he must protect his business by selling storage supplies when there seems to be a chance to make a profit. At a time when he is long on poultry and the poultry market takes a soar, he must throw a large part of his stored poultry on the market trusting to the natural reaction to protect his sale.

To know when and when not to store calls for a good amount of discernment concerning future markets.

**Prices
and
Storage**

When conditions point to heavy storage of a certain line the buyer “lays low” for various reasons. Storage rates are higher, for one reason. Alternating high and low yearly prices are another. It is almost a business axiom that when prices of a given product are high one year that next year “everybody will be in the business.” The farmer sees prices high on potatoes one year—the next year the market is glutted. This homely principle is really at the bottom of the buyer’s insight into storage prices. He looks for a glut after high prices and does not store heavily. After he has had a successful storage season

that is taken as a warning indication that he had better look out for low prices.

All this embraces a knowledge that is used, but in a much more elementary sense, by the ordinary buyer. There is not the fluctuation in standard or even sub-standard products that there is in the class just referred to. One has but to observe a graphic chart showing the variations in prices for a year or even six months, to realize how great the variation is in perishable food supplies, as compared with standard products. This variation is due of course, to the variation in supply, modified by the weather conditions, the demand, and a thousand other factors.

Buying for a catering concern is different from the ordinary run of buying in one important respect, the buyer must go out and buy a large portion of his stuff, "do his marketing"—instead of having the salesman come to him. When the ordinary engineering or manufacturing buyer finds supplies are needed, he turns to his catalogue cabinet, selects a dozen or more catalogues of reliable houses, carefully compares their quotations, selects the house that gives the best price and offers the most satisfactory deliveries. The salesman, in the guise of the catalogue, has come to him.

The restaurant buyer finds it is necessary to "market" for each lot of supplies taken on from day to day, the buyer going to the various places where they are sold, as early as possible, sampling them, arranging

for their delivery, and doing the bulk of this class of buying in a comparatively short time. Here a few minutes may make a difference in the cost, quality, and promptness of delivery of his goods. He must know the time at which each line is best purchased, the specialties of each commission man on the street, the reputation of the various firms as to quality of goods, promptness of delivery and, in fact, everything having a bearing upon the subject of efficient buying in his line.

It is absolutely necessary to know the exact life of each perishable product bought and this, coupled with the varying demand, makes it difficult for the buyer to estimate his quantity with any probability of such estimate being exact. He must have in mind the bill-of-fare of the restaurant for the coming day. He must satisfy himself as to which of the supplies he is purchasing he will have the heaviest demand for and grade them down so that as little as possible will be left over, and at the same time figure so carefully that no article on the printed bill-of-fare will run out. It is a severe test of a good buyer to never have an article on the bill-of-fare refused the patron because it is "all out."

**Estimating
Quantities**

CHAPTER VI

BUSINESS CORRESPONDENCE AND THE BUYER

BY A. L. MACBAIN

The utility of the letter in business to-day is recognized as it never was before. Among the important business sciences, that of correspondence stands well at the head. Indeed, it is no extravagance to say that a business may be made or unmade by its correspondence department. Nor need this statement be restricted—as some would have it—to the mail order house. To make the application specific it is not too much to say that the buying department, particularly the buying department of a country firm, is dependent upon correspondence for good results, to a much greater extent than is commonly supposed.

To show how the best results may be obtained and how the buyer may make correspondence a great aid to him in the stress for “good goods at low prices,” is the object of this article.

Theoretically, many a man is able to tell how business correspondence affects the particular line in which he is interested. But practically, it is often in evidence that those who understand the theory of things often are negligent as regards practice. This, however, is

no argument against theory. There is little or no danger of any hard-headed business man taking on such an amount of theory as will do him any damage. The theorist is more liable to be found in the realm where his theories are not demonstrable, and one advantage of theory in business affairs is that it may be tried and found good or bad without undue delay.

When a letter is considered as standing in place of its writer and being his representative, its importance may be appreciated. But when it

**Use and
Importance of
the Letter**

becomes necessary for the buyer to do business by mail with his supplying firm he often feels that he is using a medium with which he is not familiar—that he is handicapped, limited, by being confined to written instead of spoken speech. This is particularly true because of the fact that the greater volume of buying has always been done orally instead of by correspondence and the buyer feels he is at a disadvantage the minute he takes a pen in his hand or sits down to dictate.

This feeling results from unfamiliarity with methods in the first place, and in the second place is the natural result of contact with the traveling salesman. The traveling salesman, skilled in a lifetime of meeting the public, looks to self-preservation always. He makes a friend of the buyer. He obligates the buyer to him and discourages all dealings direct with the house. And he would be foolish from his point of view did he not. For should the buyer form the habit of

asking his quotations and ordering his goods direct, there would be less use for an intermediary.

Then too, the merchant, particularly the retail country merchant does not know how to approach the city house. He may have made a trip to the metropolis and have found the firm from whom he purchases his goods occupies even larger quarters than is evidenced by the cut on their catalogue cover. He finds that when he visits this immense establishment that the order he has brought with him seems to have dwindled in size, and he himself shrunk greatly in importance. In his own town he is somebody; his store is considered quite an establishment; his trade is worth working for.

When he finds that as much attention is not paid him by the city house as by their traveling representative calling upon him, he may form the incorrect opinion that his order is not wanted. The fact is that nearly every city organization, be it a store, a manufactory, or in fact any industrial plant, is worked up to the limit. The wholesale house selling to the country trade often has made little or no provision for the country buyer when he comes to the city.

All these things tend to make the country buyer believe that the only avenue of approach to his supplier is through his traveling salesman. No greater mistake could be made. The other avenue is by means of correspondence. The why of this is that the house receives its orders by mail, either from the salesman as an in-

termediary or from the buyer direct, and when the buyer mails an order or asks a quotation direct, he has eliminated one of the steps in the handling of his business.

The general aspect of correspondence of the buyer with his house is by far too important to be overlooked here. The house does not meet him personally and it has, therefore, of a number, two important methods of gaining a knowledge of him—through the salesman's reports and through the correspondence which he himself has with the house.

Now, not taking into consideration the report that the salesmen may give of him, it seems plain that the country buyer is neglecting a profitable field when he neglects to keep his correspondence on the highest plane.

There is no one thing that will do the country merchant so much good with his house—aside from his usual prompt remittances—as uncompromising neatness and a business-like appearance of the correspondence which he has with them.

His letter may not flow as smooth as the effusions of a professional hack-writer—the grammar may even limp at times—but if it bears the unmistakable traces of business quality it can not but have a favorable and far-reaching effect.

The ordinary business man gets a permanent opinion of the men with whom he corresponds by the business

stationery which they use. A firm sending in its orders or making its inquiries on a sheet of paper torn from a cheap scratch book, written with a defective pen, in ink that evidently saw its best days before being frozen or diluted, creates an impression of business smallness and incompetency that can not be counteracted.

The first point to be considered in the relation of buying to trade correspondence, is that of business stationery. There is no reason why the stationery sent out by any firm should be cheaply gotten up or poorly printed. There is always open the best facilities for obtaining good printing, even from the country printing office. Good stationery costs but a trifle more than poor, often no more.

Effectiveness, too, is gained by having stationery distinctive. A distinctive letter-head, trade name, or trade-mark is always a good investment.

While it is not possible for every buyer to use a typewriter, yet he can have his letters written in legible longhand; can have them business-like and to the point, with no superfluities of any kind; and can turn out a communication which says as plain as possible that the writer understands his business.

The secret of the business-like letter is that it is written naturally, *just as one would talk*. Custom has burdened business correspondence with superfluities and formalities of which it might well be rid, and stock phrases and stereotyped phrases are among the number,

Let the buyer, in correspondence, be direct and business-like by writing naturally, as he would speak to the man if he were actually in his presence.

All these things reach farther and have greater weight than even the man old in business may suppose.

Touching a vital point—the matter of credits—the credit man in the absence of exact information often is

**Credits and
the Business
Letter**

guided by the sense of intuition. The correspondence that has been sent out from the country store has been a great guide to him in obtaining his opinion of the business-like qualities back of it. The slouchy, ill-written, unbusiness-like communication says as plain as possible that it is only a question of time when that firm will either fail or be driven out of business by a more enterprising competitor.

On the other hand, a well written communication showing that the writer has cared enough about the higher details of business to observe them, can not help but impress everyone who comes in contact with it that this communication is representative of a man who is a master of the business art, and who never will meet failure through incompetency—and incompetency wrecks more businesses than any other cause.

Where business correspondence touches buying more intimately than perhaps elsewhere, is in and through the fact that the buyer is always asking concessions. Prices are catalogued, it is true, but they are somewhat in the nature of a challenge and the buyer

must continually be asking concessions in price. When the direct method of reduction in price is not successful, the indirect method must be tried, **The Buyer Always Asking Concessions** that of asking rebates on account of freight, discounts, cash payments, and for other reasons that will be brought to mind by the experienced man. Whether or not these will be granted depends to a greater extent than most suppliers will acknowledge, upon the manner in which they are asked. If the buyer asks for a concession with confidence, in the spirit that such concessions *are* made, and that he is aware of the fact, he is far more liable to receive it, than if he goes at it in an apologetic manner, as though he were asking some favor out of the ordinary.

To obtain favorable quotations on tentative orders submitted to a house, these should be in a form to be taken care of readily by the firm in its regular routine. It is always best in asking such quotations to make use of the letter only to state the case and make the request. The order should not be written in the body of the letter. This is in conformity to ordinary house organization and routine. There may be reasons why the house may not wish to quote a low price over their signature and prefer to enter their prices on the blank sent.

Where a house is a large buyer it may have its own order blanks, but it is always best to keep by a number of order blanks used by each supplier. There is yet no standard blank, but the time is rapidly approaching

when houses in similar lines will have the same or practically the same order blank.

It is supposed that the buyer is in the market for a substantial order of a certain line which can be supplied by a number of competing firms. He thereupon writes each as follows:

Gentlemen:—

On June 15th, or thereabouts, we will need goods as per attached order, our No.—. We have made up same substantially as we wish it filled, but before filling we wish, naturally, to obtain the best possible prices, therefore, we submit it to you with the request that you treat us as well as the market will allow.

You will greatly oblige us by quoting the best discount on this bill, for cash, and on receiving such quotation we will in return advise you immediately of our action.

Thanking you for the uniform courtesy and fairness with which you have always treated us, we remain,

Very truly,

To this letter is attached the conditional order for prices. To quote, therefore, the buyer has but to fill in the prices, take a copy and return, or otherwise make his quotation according to the routine of the house.

One point that should never be overlooked is in the reply letter that is to be sent to the “unsuccessful bidders.” This letter should never be omitted and should read somewhat as follows:

Gentlemen:—

Your quotation, under date of——, on our order No.——, received to-day.

Replying will say that we thank you for your quotation, but we have received prices more favorable from two other sources.

One of these quotations we regard as an opening bid for trade by a house with whom our volume of business has never been large, the other we regard favorably.

It is possible that the market will allow you at this time, to modify your prices given us on this order. If so, and you will inform us before July 12th, we will be pleased to consider such concession.

Thanking you for your courtesy, we remain,
Very truly,

As a result of this method of procedure the buyer can be absolutely sure that he is receiving the lowest price possible from each one of the houses from which he has requested a quotation. Now note the information that he has received: He has not only obtained a low price for the order which he is about to place, but has added to his store of valuable information concerning the relation of prices of the different houses to each other under exactly the same conditions. This information suitably arranged gives him a line, not otherwise obtainable, on the relative worth, for his purpose, of the different suppliers.

It is supposed, of course, that the buyer has a suitable system for recording, not only his correspondence

and quotations, but also an organization which automatically takes care of all his detail information. The mechanical side of buying is so important that if he has not a system for indexing his catalogues and lists; a system for informing him when stock is running low; a more or less comprehensive system of perpetual inventory; and, in fact, a system for all matters of detail, he will not have time to devote himself to the broader, larger phases of purchasing, of which correspondence is one of a number.

**The Buyer
Must Have
A System**

It often happens that early attention to an order is necessary so that it may arrive in time for advantageous sale. There are two excellent methods of compelling attention to an order when forwarded to a house.

The first is by use of the special delivery stamp. The business man of to-day is only partially awake to the "hurry-up" influence of the special delivery stamp. The special delivery letter arrives, it may be true, but a few minutes before the one regularly mailed. It, however, is delivered by a special messenger, and by that fact alone compels attention. If one hundred or a thousand letters are in the office being opened, and routed through the various channels of the organization, a special delivery letter will take precedence over them all, on the theory that, "It must be important or it would not have been sent special delivery."

**The Special
Delivery
Letter**

In this respect the use of the telephone in business is similar. There are few business men who would not interrupt a private interview to answer their desk telephone. So there are few business houses who will not place the special delivery letter ahead of those coming in in the ordinary manner. The order may not only receive quicker attention, it may possibly receive a better price, simply because of its distinctiveness.

While it is advisable to telegraph orders or requests for quotations as seldom as possible, yet the telegram as a means of hurrying up the filling of an order, insuring prompt attention being given it, or obtaining a favorable quotation, is of great importance.

If each order sent out is numbered it is possible to make a telegram as concise as is necessary and yet convey all that is desired.

"Duplicate order No. —, May last year," does not exceed ten words, and the supplying house can turn to the order number given upon receipt of the telegram, and hurry it out. Similarly, "Quote us on duplicate order No. —," is short and yet distinctive enough to tell all that is desired.

It may be observed that the special delivery letter and the telegram are both liable to receive better attention and better prices because of the fact that they are communications out of the ordinary run. Not that either, especially the latter, should be used for everyday orders; far from that. It is to be assumed that business men will not make themselves ridiculous by

wiring in an order for a keg of nails, for a bolt of cloth, but that they will use modern facilities offered them in quick delivery correspondence and by the telegraph, when either is called for by appropriate conditions.

The buyer, therefore, who has never used correspondence as a means of securing what is rightly and advantageously due him, has simply been overlooking a field which is worthy of his best efforts and one which will respond immediately to his attention.

If he has received poor results from his venture into the field of correspondence let him be assured that the fault is his, as others are using correspondence methods and by them obtain results. And if he has been but partly successful he has but to press on for farther and satisfactory results to have them forthcoming.

SYSTEM IN BUYING

PART II

CHAPTER VII

A MODERN BUYING SYSTEM

BY G. A. HAMMER

Buyer, The Shaw-Walker Company

The following system was devised and installed to facilitate the purchasing for three companies in the least complicated manner possible. It therefore represents the simplest system that will perform the largest amount of work and at the same time record everything that it is necessary for the purchasing agent to know.

The first form which is used is the requisition which is filled out by the heads of the various departments.

This requisition is subject to approval of the buyer and is used by him as a guide from which to make up the order or orders necessary to fill it.

In the illustration given, three different orders are necessary to fill what is called for by the requisition, three different order numbers being used, one for each item. In order that there may be no mistake as to the items which have been given their proper order number, it is customary to connect them by lines as shown in the engraving, Figure I.

The order blank is one similar to that in use in a

[illegible]

Figure 1: the requisition

large per cent of business houses to-day. The size of the blank is 5x8 inches, and of this space 3x8 inches is given to the order itself.

OUR ORDER NO. 2532 THE JOHN DOE COMPANY TO <u>Standard Company,</u> CHICAGO ADDRESS <u>N. Y. Life Bldg., Chicago.</u> PLEASE SHIP TO <u>1406 Security Bldg.,</u> Chicago.		DELIVER NO INVOICES TO EMPLOYEES. SEND SAME BY MAIL. WILL NOT BE RESPONSIBLE FOR ANY GOODS DELIVERED WITHOUT ORDER. ALWAYS PUT THE NUMBER OF THIS ORDER ON YOUR INVOICES AND BILLS OF LADING, OTHERWISE WE SHALL RE- TURN THEM TO YOU WILL NOT PAY FOR BOXING, PACKING OR CANTAGE
DATE <u>June 24th,</u> 190 <u>5</u>		
500 Vertical File Folders, Letter size.		
ORDER		THE JOHN DOE COMPANY BY <u>G. A. Hammer</u> BUYER
SEND INVOICE TO THE SECURITY BUILDING		

Figure II: the order blank

The first sheet is ordinary thin bond paper and bears in large type on the left-hand margin the word

ORDER, to distinguish it from the second sheet. The second sheet is of the same stock, both as to color and weight, the third sheet being heavier stock suitable for filing, and strong enough to stand constant handling, and to maintain an upright position in the files.

The first sheet, the original, goes to the supplier, carbon copies being made on the second and third sheets.

Information to the supplier is printed on the order blank in the upper right-hand corner and concisely states the conditions on which the order is placed.

The use of an "apron" or detachable sheet for the acknowledgment of an order has been tried and is still in use by some houses. There are a number of objections against its use and in this system it has been discontinued. In the first place it adds another blank to the series, and what is more important, few suppliers will acknowledge the receipt of an order—particularly a small order—outside of their own routine method. They will not fill out a blank sent them and mail it, the usual notification of receipt of an order being a postal card. Some suppliers do not notify at all, and the use of a regular blank sent by the buyer to the supplier, requesting acknowledgment of receipt of order, is not satisfactory in its operation.

The second sheet is a duplicate of the original as far as the typewritten order is concerned and goes to the receiving department to check against the incoming invoice and finally is attached (usually) to the

ORDER NO. 2832 Standard Company, W. Y. Life Bldg., Chicago. 1406 Security Bldg., Chicago.	RECEIVING DEPARTMENT THE JOHN DOE COMPANY INV. NO. <u>4471</u> FEB DATE RECEIVED <u>July 5 '05</u> JUNE 24th, 5
500 Vertical File Holders, Letter size.	
CHECK UP ALL GOODS AS SOON AS RECEIVED AND RETURN WITH INVOICE TO OFFICE USE BACK OF SHEET FOR DETAILED STATEMENT AS TO SHIPPING	

Figure III: the second sheet or duplicate of the order blank

invoice for convenience of the auditor. After it has been used in this manner it may be either retained or

ORDER NO. 2532 Standard Company, W. Y. Life Bldg., Chicago. 1406 Security Bldg., Chicago.	OFFICE AND PURCHASE RECORD THE JOHN DOE COMPANY DATE RECEIVED <u>July 5</u> INV NO. <u>4471</u> DATE <u>June 24th</u> <u>5</u> CK'D <u>MJC</u>
✓ 500 Vertical File Holders, Letter size.	
THE JOHN DOE COMPANY BY _____	

Figure IV; the third sheet or triplicate

discarded as it is of little use after having checked the original order.

The third sheet or card, after the order is placed goes to the follow-up files, being filed under such number as corresponds to the day and month when delivery is wanted, promised, or may be expected. This automatically provides that attention will be paid to the order only when necessary—when it is overdue.

For final filing, the supplier's invoice number is entered on office and purchase records, together with date received, by whom checked, etc., and the card is placed in its final file. Arrangement in the final or record file is as follows:

ARTICLE										
DATE	NAME	IN. OR OUT	LAST	ORAN.	NO.	FT.	DEL'D	DEL'D 2 CTS.	TOTAL COST	REMARKS

Figure V; quotation card

Where a supplier is ordered from continuously and in large lots, or often enough to warrant, such supplier is given a number and all duplicates of orders are filed under such number.

Other supplier's names are filed alphabetically or numerically by the option of the purchasing agent, in the same file. The disposition of the remaining suppliers' cards is one that is to be decided by the amount of business done with them.

The recording of quotations depends upon the in-

dividual preference of the buyer. If a man wishes to study his quotations and satisfy his mind regarding them at odd times, it is advisable to carry an indexed

ARTICLE.		PER		
DATE	NAME AND ADDRESS	PRICE	TERMS	REMARKS

Figure VI; quotation card

list of quotations in a small note book. This has many advantages, as it enables the buyer to have his quotations constantly by him, and not at the office alone.

DATE <u>June 29th,</u> 1905 -
MR. <u>Davis,</u> YOUR
REQUISITION FOR <u>500 folders, 2 rubber stamps,</u>
<u>and 10,000 second sheets.</u>
HAS BEEN PLACED TO-DAY WITH <u>Standard Co.,</u>
<u>Star Stamp Co., and J. E. Helton Co.</u>
DELIVERY PROMISED ABOUT <u>July 6th.</u>
G. A. HAMMER.
BUYER.

Figure VII; the "placed order" notification

For the recording of quotations on cards there are many systems used which are of merit. Figure V shows a card that is comprehensive and well thought

of by buyers. This card contains a great deal of information in a small space.

Figure VI is a variation of this form and meets with approbation of many buyers.

Figure VII shows the "placed order notification" that acts as an anticipator in heading off many inquiries as to whether certain supplies have been ordered or not. This small slip, 3x5 inches in size, takes but a moment to fill out and saves a great deal of the time of the buyer answering telephone and personal calls from department heads, as to whether the order has been placed by him and when it will be delivered.

and Power Company of West Superior, Wisconsin, and has proven its efficiency both as a time saver and a check against error.

Whether a plant of the characters mentioned is controlled by private parties or municipalities purchases must be made and system should prevail for the protection of all concerned.

This company operates several distinct lines of business, as well as a number of side lines such as house-wiring, gas-piping, gas stoves, and others, and the purchase requisitions originate with the various

PRICE O. K.	EXT. & F. T. & O. K.	REC'D O. K.
<i>Smith</i>	<i>Jones</i>	<i>Brown</i>
DEDUCT:		

Figure II

heads of departments. Hence it is not possible to use a combination requisition and order blank in ordering supplies.

The requisition in use (Figure I) is a complete history of the transaction involved, showing its approval by the company manager, the price, if any, evidence of receipt, checking of goods, freight, express or drayage paid and account chargeable.

The various operating extensions and other accounts comprise about 120 headings in the company voucher journal, each one of which has a number, and

Superior Water, Light & Power Co.

Chronology of Reproduction Plans

- 1st - She does not fly. Approaches and hup into date
- 2nd - Turns into a change for approval
- 3rd - Turns over to some change agent
- 4th - Finds out for file to some point, shape
- 5th - Goes out. Then and out to some time
elements and turned on to blocks on
- 6th - Filed in Good's record file
- 7th - Checked against good's record, material
for change, raised and turned on
by a change agent to some time
- 8th - Checked against success and ^{with} some
to the paper for checking, of information
and something
- 9th - Another approval by day distribution
indicated and turned on to look
keep the place distribution and
of knowledge and ^{with} some time
10th - Complete. Another ^{with} some time
for a change agent for approval
and ready to go
Represents where many are
placed within the same from success
and acquisition are that in a file
and combined together for material
of each month

Figure III -

it is this number which appears under the head of distribution on the blank in question.

The company believes that the storekeeper should have turned over to him all information that indicates the exact quantity of goods which he is to receive, for the reason that most of the shipments contain a statement of the contents and the actual number of feet or pounds vary so often from the requisition, as in the case of wire, pipe and many other articles, that any tendency on his part to pass in a requisition without first checking the goods received would involve him in difficulty at once.

Under this system each voucher form has attached to it both the invoice and the requisition, so that the official who approves the voucher may learn at a glance everything bearing on it from the original requisition to the ultimate disposition.

A stamp is also used (Figure II), on all vouchers. This, together with the attached requisition, forms a complete check on the voucher.

The system will in all probability be better understood by a study of the chronology of the requisition blank (Figure III), which explains in detail the various avenues through which it passes from the time it is made out until its final disposition when it is filed for future reference if necessary.

CHAPTER IX

A CITY PURCHASING SYSTEM

BY JAMES WEIR

Treasurer and Purchasing Agent Weir & Craig Manufacturing Company

The Weir & Craig Manufacturing Company, using the system given below, is one handling plumbing supplies principally. The machine shops do a general line of manufacturing and engineering work, particularly packing house machinery, the plant being typical of any modern, up-to-date shop combining the various manufacturing and engineering operations. In the busy season about 250 men are employed.

The purchasing department looks after the purchase of regular and standard supplies, material, machinery, appliances, fuel, etc.

Owing to the favorable location of the plant and the fact that practically all the supplies needed by the company are purchasable in the city, it is not necessary to maintain as complicated a system as though outside firms had to be called on, and the orders followed up carefully, transportation attended to, etc.

Therefore, in place of the complicated systems in use by works doing a great deal of purchasing outside the city, a simple three-card system is in use, reducing the

work of the purchasing agent to a great extent and enabling him to take up the broader phases of the science unhampered by details that may take up considerable time of the man doing a considerable volume of foreign purchasing.

The use of the telephone in this system takes the place of the ordinary follow-up methods. The buyer is in telephonic communication with every house from which he buys. When an order does not show up at the required time it is only necessary to call up the supplier and the exact state of the order can be found immediately and the proper notation entered on the duplicate of the supply order in the purchasing agent's hands.

It is necessary for the purpose of the business to keep about 500 catalogues on hand. These are arranged directly back of the buyer's desk in a specially prepared cabinet, having compartments of uniform size and numbered serially. In order to assist in finding catalogues, those listing the same supplies are grouped under the same number or under consecutive numbers. In a great many cases a catalogue will contain but one or two items which the firm needs. These catalogues are placed in the more out-of-the-way compartments of the cabinet. The purchasing agent's desk is located handily near a window recess and the catalogues most in use are kept near by for constant reference, being returned to their proper compartments in the cabinet only at night.

Each catalogue bears on the front cover the number designating the compartment in which it belongs. The catalogues are indexed by an ordinary card index, two sets being used, one indexed on the name of the supplier, the other on the kind of goods. These indexes are of the "standard" form, such as are supplied by all card index houses.

REQUISITION FOR MATERIAL AND SUPPLIES	
DATE _____ CHARGE TO JOB NO. _____	
QUANTITY	
DEPT. NO. _____ FOREMAN _____	
BILL CLERK _____ POST CLERK _____	

Figure I

By far the greatest number of calls for material or supplies come from the requisition shown in Figure I. This requisition is practically self-explanatory, being turned over by the foremen of the various departments to the purchasing agent when material or supplies of any kind are called for.

This is the form that starts the purchase, coming from the foreman, being passed upon by the purchasing agent and in its complete or modified form being transferred to the order.

A minor part of orders originate in the purchas-

WEIR & CRAIG MANUFACTURING CO., 2431-2439 WALLACE STREET NO. 7245	SEE THAT THIS NUMBER APPEARS ON YOUR BILL CHICAGO
TO ----- 190 -----	
PLEASE ENTER OUR ORDER FOR THE FOLLOWING GOODS FOR SHIPMENT VIA: -----	
ACKNOWLEDGE RECEIPT OF ORDER. IF ANY DELAY IN FILLING, ADVISE PROBABLE DATE OF SHIPMENT. ALWAYS ACCOMPANY BILL WITH SHIPPING RECEIPT OR BILL OF LADING SHOWING WEIGHTS AND ROUTING. YOURS VERY TRULY,	
FOR ----- DEPARTMENT	WEIR & CRAIG MANUFACTURING CO.

Figure II

ing department, being entered directly upon the order sheet.

The supply order is shown in detail in Figure II. This order is made out in triplicate, being kept in block pads. The sheets are alternately white, yellow, and pink. The white sheet when filled out goes to the supplier, the second remains as a voucher in the hands of the purchasing agent, and the third sheet goes to the receiving clerk. The number of the order is printed in threes on the sheets, this being done by an automatic numbering machine on the printing press, at the time the forms are printed. This prevents any mistakes occurring because of improper numbering. The orders are written with an indelible pencil, carbon paper being placed between the sheets to duplicate them.

In order to prevent the receiving clerk from receipting for or checking in goods that he has not received, or in other words to put a more exact check as to "number received" upon him, the second carbon—that above the third sheet—is drawn to the right so that the number does not duplicate; the remainder of the writing does.

This feature has been found a very satisfactory one. It is a somewhat laborious process to check a large number of small articles and these are constantly coming in.

When an order for one hundred parts is sent out and but ninety-five are received, it is necessary for the receiving clerk to count the number received instead of

checking them, and consequently all danger of short checking in the receiving room is eliminated.

It will be noted that orders are made out in pencil. This is not a sign of unprogressiveness on the part of an engineering firm as a casual reader might first think. Many of the most up-to-date purchasers of engineering material still use an indelible pencil for the reason that an order for this class of material is compiled from diversified sources—catalogues, quotations, letters, etc, an item not being set down until various prices have been compared. All this takes time

ARTICLE		SIZE OR KIND		QTY	
DATE	NAME AND ADDRESS	DETAILS OF QUOTATION	REMARKS	ORDER	DATE
		PRICE			
		TERM			
		PRICE			
		TERM			

Figure III

and it is impracticable to keep a stenographer waiting for dictation while orders are being made up.

If an order after being made up is copied on the machine, it means that it must be compared by the operator and the purchasing agent, which consumes more valuable time and adds another chance for error, which in the case of engineering supplies may lead to the loss of a valuable contract or otherwise embarrass the operating department.

All articles kept in stock are listed on the stock supply form shown in Figure III. This form is simple

and self-explanatory, with regard to both form and use. As already stated, in this line of supplies, particularly plumbing supplies, the variation in various articles according to size is very great. An order for bolts, screws, nuts, or similar material may run into hundreds or sometimes thousands of sizes. Therefore, there is need for a great deal of judgment in soliciting heads for the lists, as it is necessary to keep the number of heads as low as possible, and yet keep the record as minute as is necessary. The record in this system is not as detailed as it would be were the purchasing agent not so familiar with his lines that he is able to keep track of his supplies with less reference data than is found necessary in the average office. For this reason the list of articles is not as large as it otherwise would be. Should the system at any time be turned over to a new man it would obviously be necessary for him to keep a closer record of "articles on hand."

The tendency of many houses of the present day, is to have as important work as the purchasing done by a member of the firm. When this is possible it lessens the number of forms necessary in purchasing and simplifies it to a great extent. It would not be advisable to attempt to run as large a plant as that in which this system is used, with as few forms, unless the work is performed by some one who is very familiar with the business, as an inefficient man would soon come to grief.

CHAPTER X

SYSTEM IN RESTAURANT SUPPLYING

BY O. B. STIMPSON

Manager Saratoga Restaurant

The purchasing department is directly under the supervision of the business manager and is responsible to him for all expenditures. This department honors all requisitions from the sales department and requires a statement of all supplies on hand from the kitchen, which term includes the pantry, shell counter, baker, butcher, etc.

The main duties of the buyer comprehend the purchase of all supplies necessary for consumption from day to day, the purchase of supplies for storage, the sale of all excess supplies either in the house store room, or in outside storage, and in general such duties as are in keeping with the advantageous purchase, storage, and issuance of all stores necessary to the proper maintenance of the restaurant trade.

The bill-of-fare for the coming day is the point from which the buyer works in planning a day's campaign. This bill calls for an estimated amount of supplies for each item. These supplies must come from three places, as follows:

- (1) Market.

- (2) The house store room.
- (3) Storage.

When the bill-of-fare for the coming day is laid down before the buyer he first checks off the items that the store room will provide for. These need no further attention as the store room is kept so well stocked that it will take care of the bill, unless the conditions are out of the ordinary.

SARATOGA					
ON HAND	FISH	WANTED	ON HAND	POULTRY	WANTED
	Black Bass			Ducks	
	Bluefish			Geese	
	Cod Steak			Hens	
	Frog Legs, dozens			Pigeons	
	Haddies			Spring Chickens	
	Haddock			Roasting Chickens	
	Halibut			Premium Chickens	
	Muskallonge			Turkeys, Young Turms	
	Mackerel			Turkeys, Old Toms	
	Mackerel, Spanish			Squab	
	Perch				
	Pike			GAME	
	Pickarel				

Figure I; daily supply report of the fish and poultry department

The buyer knows the condition of the store room, as it is under his immediate supervision, and to know what is the condition of the supplies in hand in the various departments he refers to the report showing the amount of supplies held on hand by the various heads. Figure I shows the daily supply report of the fish and poultry

The
Daily Supply
Report

which in the modern restaurant will be the cigar stand and bar.

The stores sheet, Figure III, is nothing more or less than a modified form of perpetual inventory, a blank being provided for each day of the month. Room is left for every transaction which affects the stores. The buyer finds this card of great use, in fact the most important record in his lot for determining the probable demand for store room supplies.

Storage supplies are handled usually by keeping the house store rooms supplied, transfer being made from outside storage as the demands of the business call and the capacity of the house store rooms permit.

It will be seen that there are many points of difference in a restaurant buying system and in an ordinary purchasing system. One of the most noticeable differences results from "open market" purchasing. The buyer has no catalogues for this—and must judge market conditions from actual contact with them instead of by leisurely consulting the printed page. Then, too, the fact that so many of the supplies handled are of a perishable nature, their per cent being larger than in any other business, demands that the system must be simple yet thoroughly comprehensive.

CHAPTER XI

BUYING AND THE HANDLING OF SUPPLIES

BY H. T. KETT

Supply Agent, Montgomery Ward & Company

The mail-order house of to-day is a product of modern industrial conditions—and of American conditions. From the early days of this country's history, when occasional articles were ordered from the small retail shops by notes delivered by messengers, at a time when the arrival of the mail was an event, to the wonderful system which prevails to-day, is a long cry. As the commercial development of this country advanced, so has grown the mail-order business. The rapid growth of the great railroad industries, the telephone and telegraph, and the perfection of the postal facilities, have brought the great businesses of the world to the most obscure corners and to the farthest territories, and has given birth and development to one of the most significant enterprises in this country. At the present time there is not a district in the entire United States that can not be considered available for mail-order sales.

This growth has been made possible through organization. Each step in the development of the mail-order enterprise has been based on system—a system that has kept pace with the great demands that such a

business is called upon to meet. From humble beginnings has been developed the great mail-order houses of to-day. And system has kept pace with this growth.

A brief review of the systems in vogue in the purchasing department of one of the big mail-order houses of the middle West will illustrate one of the processes by which such an enterprise is conducted—an enterprise which has organized and systematized the services of nearly four thousand employés, and which today is one of the two largest mail-order houses in the world.

[illegible]

Figure I; the inter-division requisition slip

Originally, when the business was smaller, there was no regular method for conducting the supply department of the establishment. A department head who wanted any article would go to one of the members of the firm and get permission to buy it, or take it out of stock.

This method naturally became unsatisfactory. In the first place, as the business grew, the members of the firm objected to having their time taken up by de-

oiding whether or not the articles called for were necessary. Secondly, if an employé were turned down one

REPORT OF LIGHTS BURNING UNNECESSARILY	
DIVISION	_____
EXACT LOCATION	_____

DATE	_____
TIME	_____
NUMBER OF LIGHTS	_____

TO THE DIVISION MANAGER: THIS CALLS YOUR ATTENTION TO UNNECESSARY EXPENSE THAT CAN AND SHOULD BE STOPPED BY ACTION ON YOUR PART. FAILURE TO REMEDY THIS SIMPLY MEANS THAT THE SECOND REPORT WILL BE MADE DIRECT TO W. C. THORNE, GENERAL MANAGER. H. T. KETT, SUPPLY AGENT.	

Figure II; how one form of waste is eliminated

day by a member of the firm, he would wait a few days and try some other member. The chances were much in his favor of finally getting what he wanted. Thirdly,

an engineer who bought coal, or a carpenter who bought lumber, although capable men, are not hired for the purpose of buying supplies, and they are not so capable as a man who does nothing else and who must excel to hold his position.

Consequently, the idea of a supply division was formed, and one man was held responsible for every item of expense used in the conduct of the business.

To meet this need, a floor was set aside to carry the necessary stationery, wrapping paper, twine and other articles not sold in the house. Then each division was supplied with a requisition book containing from fifty to one hundred blanks (Figure I), perforated, easily detachable, and made for carbon copies to be left in the book.

When the requisition is made out and receives the O. K. of the division manager where it originated, it is then sent to the supply agent for his approval.

If the item called for is in the supply division, the requisition is kept and filled. If in some other department, it is forwarded through the postal system of the establishment. If it is in neither one, the item is then purchased especially.

The requisitions which are sent to the other divisions are filled by the order clerks and then given to the buyer to be priced, and afterwards sent to the auditing division for final disposal. The article is then charged up against the division which needs it, and credited to the division which gives it. At the end of the month

all these requisitions are returned to the supply agent, who carefully inspects them, first, to see that there are no forgeries, and, second, to see that no unauthorized changes have been made.

Items bought outside are charged direct from the bills and the requisitions are destroyed.

SUPPLY DEPARTMENT			
DATE <u>11/1/09</u>			
ITEM	QUANTITY	UNIT PRICE	TOTAL
1. <u>Watches</u>	<u>100</u>	<u>1.00</u>	<u>100.00</u>
2. <u>Watches</u>	<u>100</u>	<u>1.00</u>	<u>100.00</u>
3. <u>Watches</u>	<u>100</u>	<u>1.00</u>	<u>100.00</u>
			TOO SOON
			ORDER AGAIN WHEN ONLY
			1/2 IN STOCK DATE <u>11/1</u>

Figure III; the supply order sheet, filled out by the stockman

No system is complete which overlooks small things. As important are they in a big mercantile establishment as in the works of a watch. In a great concern they multiply fast. If they all are overlooked and run to waste, they totalize a huge loss at the close of the year. Of course, in any large establishment there are many forms of waste and extravagance, which are looked upon oftentimes as too small to be considered. But no item should be ignored. The supply agent has them provided for.

To help in this the form shown here was drawn up (Figure II).

The light report is estimated as saving from four to five hundred dollars.

Another form—a small printed slip—is sent to the division managers, who pin stationery to their requisitions, which are known by name or form numbers. This form reads as follows:

“Sending samples is not necessary and it is an infraction of the rules. We fill the requisition this time, but please bear it in mind in the future.—Supply Division.”

THIS IS MERELY A REQUEST FOR PRICES, NOT AN ORDER		
CHICAGO TO		
BY		
.....		
PLEASE QUOTE US ON FOLLOWING ITEMS:		
.....		
.....		
.....		
.....		
.....		
MONTGOMERY, WARD & CO. PER		
RETURN THIS SHEET WITH YOUR PRICES IN COLUMN ON THE RIGHT.		

Figure IV; the “request for price” slip

Two other conveniences for conducting this end of the business are also shown here. First, the supply order sheet (Figure III). To guard against the possibility, through oversight, of running out entirely of any stock, in any given article, the following provision was adopted:

When stock runs low the stockman reports the amount on hand, and how long, according to his judg-

Supply Order
Sheet and Re-
quest for Prices

[illegible]

Second, the request for prices. No matter how small the items are, they may be filled in the slip, shown in Figure IV, sent to the wagon-man, and returned with the prices wanted in an hour or two, at but little trouble or expense, as the "pick-up" wagons are on the streets constantly. Prices obtained thus are much more satisfactory than those gotten over the telephone.

of course, shows this form number, which is then easily located in the drawers, the cards being divided by guides, cut into twenty-fives.

In another drawer two other alphabetical indexes are arranged, to take care of all miscellaneous and engineering items (Figure VI), two cards going in each division of the alphabet, so that oil bought for general purposes would be in the "O's" of the miscellaneous index; or, if bought for the engineering purposes, it would be in the "O's" of the engineering index, and other articles accordingly.

CHAPTER XII

A MANUFACTURER'S PURCHASING SYSTEM

BY S. G. ELBON

Secretary, National Concrete Machinery Company

In any works or manufacturing plant the buying of all the material and supplies used by such a plant, constitutes the function of the purchasing department.

The most common classifications into which such purchases are divided are:

- (1) Raw material.
- (2) Equipment.
- (3) General and auxiliary supplies.

Raw material comprehends all material which in any way enters into or becomes a part of a finished product.

Equipment designates any apparatus, machinery, or tools necessary in the making or manufacture of a product.

General supplies comprehends those supplies as are consumed in the plant itself, being no part of material. Auxiliary supplies comprehend such supplies as are not actually used in the making ready a product for sale. Another division of section 3 would be general supplies, fuel, office supplies, and general and miscellaneous purchases.

Uniformity of methods is a desirability in any purchasing system. The system itself should be capable of modification so as to permit the making of any kinds of purchases so that there will be no difference in the routine course of each. The points which any system should cover are three in number:

**The Three
Points of a Pur-
chasing System**

- (1) It should record and classify everything used by the firm, all sources from which purchases may be made, and record previous purchases.
- (2) Unfilled orders should uniformly be kept track of.
- (3) Deliveries and mistakes should be checked up and noted.

In order that the first point may be suitably taken care of, it is necessary that the catalogues of various firms be systematically filed and that all articles and firms selling these articles be listed in a comprehensive alphabetical index.

The making of a card index is not a difficult matter nor one calling for much except absolute accuracy and a knowledge of the various lines listed in the various catalogues of the different houses. An index is of value only as it is complete and accurate, and index-making should never be trusted to any employé who can not answer those requirements.

Form I is one of the series of alphabetical cards arranged according to the various firm names which contains the following information: Firm name, line

of goods sold, catalogue or price list date, location of catalogue.

Form II indexes on the name of the class of goods or specific name of the product to which it is desired to refer. For instance, the form shown under the heading "Pinions," gives the names of various firms who carry pinions in stock. If a catalogue of this firm is on hand the file or shelf number where it is to be found is

<i>Hatchets, Lathing</i>		
	<i>Hanson & Mann</i>	<i>D178</i>
	<i>Hall & Co.</i>	<i>F11</i>
	<i>Perry & Shafer</i>	<i>D17</i>
<i>Perry & Shafer</i> <i>178 Cass St. Chicago Tel. Black 107</i> <i>Mfrs. Genl. Hardware</i>		
<i>6/29/04</i>	<i>Catalogue & Price List</i>	<i>D17</i>
<i>7/1/04</i>	<i>List of second-hand goods</i>	<i>F10</i>

Forms I and II

given. If the catalogue is not in stock that column may be left blank or be given suitable notation in lead pencil as desired. This file, in order to be valuable, should be very comprehensive. There should be included in the index the name of every dealer of whom it is probable that a purchase will be made. Usually the classification is a general one on these articles but it may be as specific as desired.

A works or factory which does any great amount of buying will also need a card index of quotations.

Form III is ruled up so as to provide spaces for the following data: Firm quotation, date, amount, amount and term of discount, time of delivery, etc. Subdivision of these lists is carried as far as desired, each size, grade, or variety of goods having a card.

Hatchets, Lathing					
Hanson & Mann		1/10/10	7.79	2% 30d.	Del. at once
Perry & Shafer		1/10/10	7.80	2% 30d.	

Hatchets, Lathing					
1/10/10	421	Hanson & Mann	6dg	7.75	7.75 O.K.
1/10/10	427	Perry & Shafer	6dg	7.75	

Forms III and IV

Besides the other information noted there may be listed anything else desired, as the catalogue location and catalogue page number. These cards are subject to constant revision as quotations change, but nothing need be erased and the records of years may be kept in a most compact space so that at any time a graphic representation of the fluctuation in the price of any line of supplies or any product may be made. If kept posted up to date it is always available to give the last quoted

price on anything that it is desired to purchase for the plant.

Form IV shows the purchasing record for the article indexed on the other side of the card. This card is commonly ruled up so as to show date of the order, order number, selling firm, amount of purchase, when delivered, date—either real or probable, or both—of the exhaustion of supply. A column may also be left if

REQUISITION NO.				DATE	
PLEASE ORDER MATERIAL BELOW REQUIRED FOR					
LINE	QUOTATION	DESCRIPTION		REC'D	REC'D
1					
2					
3					
SIGNED					
LINE NO.	ORDER NO.	DATE	FROM WHOM		
1					
2					

Form V

desired, for "Remarks," as to quality of the supplies ordered.

The invoice as a means of determining a former price on a bill is comparatively satisfactory when once found, but it is of little or no use as a comparative record on a line of supplies bought from time to time in a period which may extend over several years. Besides being of use because of availability, this form

acts as a check on expenditure, for a summary may be made at once of the amount of a certain line of supplies that has been ordered and used for any period of time since the installation of the system.

Ordinarily, when goods of any kind are wanted it is necessary to make out a requisition. In case the purchasing department has charge of stores this will not be necessary, but this arrangement is rarely in force. The requisition blank is shown in Form V. This requisition is ruled so as to leave room for the following notations: Line, quotation, description of material, when received—and in case the material wanted is to be charged to some particular requisition number—space for job or order number.

The requisition blank is made out in triplicate, the following course being taken in regard to copies number two and three: the original is kept by the requisitioner; the two remaining copies go to the purchasing agent. Sheet Number 2 he retains, on sheet Number 3 he enters the date on which material was ordered, its order number, and any other notations as desired. For instance, it might be necessary to order part of the material on one date and part on another, in which case appropriate notation would be made. Sheet Number 3, therefore, contains all information that it is necessary for the requisitioner to know, and it is returned to him for the purpose of notifying him that the order has been suitably disposed of, and when he may expect

the material. He attaches this to the original order and files it with the original copy.

The next form to be required is shown in Figure VI and is known as the order form. This form shows an itemized list of material in the required quantity

NO.		
CHICAGO, ILL. _____		
TO _____		

PLEASE SHIP TO _____		

_____ WHEN _____		
ARTICLES	MATERIAL AND SIDE BLK. NO.	COST ORDER OR ACCT. NO.
_____	_____	_____
_____	_____	_____
_____	_____	_____
NO INVOICE ACCEPTED WITHOUT ORDER NUMBER OR NAME. AN ITEMIZED LIST MUST ACCOMPANY EVERY BILL OF LADING, WHICH SHALL BE AN EXACT COPY OF INVOICE. EXCEPT THAT NO PRICES SHALL APPEAR. NO CHARGES FOR BOXING OR CARTAGE ALLOWED		
PURCHASING AGENT _____		

Form VI

wanted; it is made out in triplicate in the purchasing office. Should it be necessary, as is often the case, that the order be split up among several firms, there will be a set of triplicates for each firm.

The disposition of the three copies of this order is as follows: The original remains with the purchasing agent and is used as a record that the order has issued,

as a base for follow-up orders or letters, and as a record by which to check partial or complete deliveries. As deliveries are commonly made in parts, blanks are left for entering the date, quantity of delivery, and such other information as may be desired. This is made necessary because of the fact that any order is liable to shipment in installments.

Sheet Number 2 goes to the seller; sheet Number 3 is forwarded to the bookkeeping department where the material charges are made either to the departments or to particular jobs or orders. After this posting, the order is forwarded to the store room, and is later used as a check against the goods when they arrive.

There are two methods of disposing of the order sheet that is retained in the purchasing office. The first is to retain "live" orders in a live order file, subject to inspection as often as desired. The second method is to file this sheet in a vertical file, having a date clip attached to the form, designating probable date of delivery. On the day of probable delivery all forms under this one date are taken out for attention. If delivery has not been made attention can be given the order, the sheet being transferred to an "attention" file, or the date clip set ahead for a few days and the form retained in the vertical file.

The purchasing department receives the first notice of delivery and the specifications of the order are checked with the invoice, and notations placed upon

Following
Up the
Order

the form giving the amount of material in the shipment as per invoice entry.

Upon receipt of the goods or material the storekeeper checks the amount received with his duplicate, forwarding same to the office of the purchasing agent. Here it is checked with the original and also with the invoice and if everything checks up satisfactorily the order blank is placed with the requisition attached to it, in the "dead" order file. Should the goods or material be not according to order or be held up for any other reason the sheet or sheets are retained in the "live" file, remaining there for attention until the matter is disposed of. Order sheets should be numbered consecutively in triplicate, preferably with a numbering machine. This number will be used every time that an order is referred to, all correspondence, papers, or cards, being designated by and filed under this number.

A small card index should be maintained to record the numbers of orders, this being indexed on the name of the seller of the particular order. This will enable the order to be found from the name. If desired a book or register may be numbered up consecutively, bearing the same series of numbers as do the order forms, and the name of the firm and the date of the order placed opposite. Usually, however, the first index will be found sufficient.

CHAPTER XIII

SYSTEM IN PURCHASING

BY W. L. DENCH

*Purchasing Agent, Elliott & Hatch Book Typewriter Company,
New York City*

The factory of the company being located in Harrisburg, Pennsylvania, and the purchasing department in New York City, it is necessary to have a system comprehensive and complete in order to avoid confusion. Upon receipt of the requisitions from the factory, the list of prices, which is kept on 3x5 cards, in a small drawer file, is consulted. On these cards are entered not only the prices of articles, but also from whom purchased and the date of the last quotation.

Provided any of the articles on requisition are not among those on the price cards, or if for any reason it is deemed possible to obtain a better price, such articles are divided into classes, entered on quotation blanks (Figure I) and sent to the different firms whom we know handle them. When the quotation blanks are returned with prices thereon, they are compared, the orders placed with the firms whose terms are considered most satisfactory, the quotation blanks are filed on a board file, and a record made on the price cards for future reference.

The order (Figure II A) is made out in original and duplicate, on our book typewriter, both being perforated so that they may be easily torn out, and the order number is placed opposite the item on the factory requisition which it covers. The original is not important, being simply the regulation blank, but the duplicate really

7 20-12-11-100

THIS IS NOT AN ORDER.

The Elliott & Hatch Book Typewriter Co.,
PURCHASING DEPT.

We beg to quote you as follows.

QUANTITY	ARTICLE	DISCOUNT	NET
70000	# 306 Nuts per blue print	70 % off list	

Above goods F. O. B. Stamford

Dated January 2, 1908 Signed R. B. Blount Jr.

Bids rendered on other than this blank will not be considered.

Where discount from standard list is given it is not necessary to fill in "net" column.

This Company pays no boxing or cartage.

Figure I

forms the basis of the system as will be seen by the cut (Figure II A), the original being narrower than the duplicate so that the date when the acknowledgment is due, and the price, can be placed on the latter without removing the book from the machine. With each order is sent a mailing card for acknowledgment and approximate date of shipment.

Taking the sample order shown as an example, the number in the lower left hand corner is the factory

requisition number, and following it is the date same was received at the purchasing department. As soon as the original is mailed, the duplicate (Figure II B), which is on heavy paper, is filed in a drawer between calendar cards numbered from 1 to 31, a sufficient

MARK ORDER	ELLIOTT & HATCH BOOK-TYPEWRITER Co.,	
776	256 BROADWAY.	
ON INVOICE,	New York, May 5, 1902	
Messrs. B. B. Blank & Co.		
The Elliott & Hatch Book Typewriter Co.,		
Deliver to	Harrisburg,	Pa.
N. H. T. Co.		
20,000 - #306 Key Lever Stud Nuts, per blue-print.		
Charge these goods and render invoices to The Elliott & Hatch Book Typewriter Co. 256 Broadway, New York. Send DUPLICATE BILLS.		
Mark Req. No. 653	on all goods sent.	
Purchasing Agent.		
This order must be acknowledged and an approximate date of shipment given. No boxing or cartage allowed.		

Figure II A

number of days ahead to permit of the order reaching its destination and the acknowledgment card being returned, in this case under May 10. When May 10 arrives the clerk takes out all orders filed under that date, and noting that the one in question has not been acknowledged, files it ahead to the next day, and keeps

filing it ahead from day to day until three days have elapsed, at which time a postal requesting acknowledgment is sent, and note of this made under the head of "correspondence sent," and the duplicate order is filed under the 15th. On that date the acknowledgment card is received, giving the date of shipment as June 2, which, being satisfactory, is entered on the order, and

CORRESPONDENCE SENT.					CORRESPONDENCE RECEIVED						
DATE	REMARKS				DATE	REMARKS					
5/13	Acknowledgment 4/23 PP				6/19	Will be shipped 7/1					
6/11	P.P. 1/2 you ship				7/17	Back in stock in 10 days					
7/19	P.L. approx. value				7/16	Will Express tonight					
7/16	P.P. fill order				7/16	Shipment on one week					
7/15	P.L. 1/3 day our letter				7/17	With ship back on few weeks					
7/17	P.P. 7/3 or				7/18	Expect make partial shipment 7/18					
7/20	P.P.				7/16	Order filled					
7/16	Partial ship as possible				7/17	Order completed Nov 27					
GOODS RECEIVED					INVOICE						
DATE	ARTICLE	NO. PCS	WEIGHT	RCY. NO.	REMARKS	DATE	ARTICLE	NO. PCS	WEIGHT	AMOUNT	REMARKS
7/19	#306	685		841		7/16	306	686		117	7/11
7/13	"	487		1114		7/11	"	490		83	7/14
7/18	"	5182		1141		7/17	"	5145		875	7/19
7/17	"	8048		1178		7/17	"	7854		1354	7/17
7/28	"	11017		1421	Complete	7/17	"	7890		1851	7/17

Figure IIB

the order then filed under "nuts," in another drawer having alphabetical guide cards and sub-divisions, and the postal promising date of shipment in another drawer having date cards, under June 2. When this date arrives the order clerk puts the card ahead a number of days which seem to him sufficient to allow the goods to reach the factory and their receipt reach this

office. As the latter did not come to hand, on June 11 a push postal is sent, noted as P. P. under the heading "correspondence sent" on the back of the duplicate order, and the acknowledgment postal is filed ahead from day to day as a reminder that something is due on the order.

Under "correspondence received" is noted a letter from the shipper dated June 19, in which he promises to ship July 1, and acknowledgment postal is moved to that date.

With this explanation, the progress of the correspondence relating to the order can readily be followed; the notation P. P. indicating "push postal," and P. L., "push letter."

On September 8, 865 nuts were received and reported on factory receipt No. 841 (Figure III), this number being placed in the column headed "factory receipt," and the order number (in this case No. 776) being placed opposite the item of "nuts" on the receipt, making a cross check.

When the invoice is received it is entered as shown, provided it agrees with the factory receipt. If any discrepancy exists the bill is returned for correction. As the sample order shown is for a very small sized article an exact count is not expected. The date in "remarks" column of invoice division is the date the invoice is sent to the factory, after being approved as to prices and terms by the purchasing agent.

At the time the order is written its number is in-

dexed under the name of the firm with which it is placed, in a loose leaf index file.

Provided goods are not received as ordered, the factory notifies this department, and is in turn instructed by us to return the goods to the shipper, and a return check (Figure IV) is sent to the latter. The duplicate of this check is attached to the duplicate order and filed with it. When an order is complete and

Form 20-20 books-1-15-25

Harrisburg, Pa., June 9 1902
 Elliott & Hatch Book Typewriter Co.
 New York, N. Y.

Dear Sirs:

We have to-day received the following:
 Elliott & Hatch Book Typewriter Co.

PURCHASING DEPARTMENT W

Quantity	Description	Received from	On Requisition
70000	#306 Key-Loc. Kuto	B. D. Blum & Co.	776

Figure III

all invoices have been passed the duplicate is filed in a binding case, according to its number, so that at any time an order can be referred to instantly. The factory receipts are filed in the same manner.

The orders are plainly numbered, in red, by the printer, but a few in each book are left without number, so that in case any order is lost in the mail another can be sent, giving it the same number. All orders for supplies from our numerous branches, as well as from the fac-

Numbering
of
Orders

tory and home office, are handled by this department. The system has been in use three years, and during that time has required only the writer and one clerk, who is also a stenographer.

PUBLICATIONS DEPARTMENT RETURN ORDER	
ELLIOTT & HATCH BOOK-TYPEWRITER CO.,	
285 BROADWAY NEW YORK, <i>June 9 1932</i>	
NO. <i>1313 Belmont St</i>	<i>New York</i>
WE ARE RETURNING TO YOU FROM <i>New York</i> VIA <i>C.R.R.</i>	
THE FOLLOWING ARTICLES: <i>200 * 3ch Key Line Mtr</i>	
ORDERED ON OUR ORDER NO <i>776</i> OF DATE <i>May 2, 1932</i>	
REASON <i>Imperfect</i>	<i>W. L. Dench</i>
REMARKS	

Figure IV

From the above, it will be seen that only those matters which require attention are brought out from day to day, and the necessity of going through a mass of orders to see that none are lost sight of, is completely done away with.

CHAPTER XIV

A SYSTEM FOR PURCHASING AND ACCOUNTING

BY R. E. NOBLE

Assistant-Manager, Morgan-Gardner Electric Works

One of the main duties of a purchasing agent in a factory or works using a large amount of raw and accessory material is a system by which he can so regulate the delivery of his purchases so that no idle time will elapse between their delivery and the utilization of them in the plant. Idle material means idle money, and it is necessary to steer clear of a disproportionate amount of idle material in the stock room on the one hand, and the exhaustion of the supply on the other.

Then, too, an element that can not be disregarded is the fact that processes and even styles of machines manufactured change rapidly and a class of goods bought for future contingencies, may have to be sent to the scrap heap because of changes in design or the introduction of a different process.

With a single exception—those goods or supplies which it is necessary to buy in season—only enough is kept on hand to supply the probable need of the plant. This requires an exact working knowledge of the kind and amount of material consumed by the works, the probable time of delivery of all classes of goods or

supplies, as well as the firm from which they may be purchased most advantageously and in general, the related knowledge of values and of cost of production.

In order to afford all this information, it is necessary that the purchasing department be in close and direct touch with the works as regards the amount and quality of material used. This department must also know through the foreman and stock departments what will be needed to afford satisfactory working conditions. This is commonly effected by the assistant purchasing agent.

As a matter of stock room detail it is necessary that incoming stock be so placed as to be forwarded to the various departments for use at a minimum of transportation expense. This reduces investment expense and saves on the pay-roll. The stock room, too, should be held strictly accountable for all material issued to the different departments. This is essentially a part of a cost accounting system but intermeshes with and is a great assistance to the purchasing department.

One of the frequent objections that is urged against the installation of any system, is that it will take a disproportionate number of employes to keep it in effect. The system here given in detail is one that is not open to this form of objection. It has been used in several manufacturing plants and works of large size, employing from two hundred to eight hundred men, and has to recommend it, its directness accuracy, and

simplicity as compared with the amount of work it performs. The purchasing agent will need but one regular assistant, an order clerk, and an additional employé who understands something of the general system, to help out as demanded, which will not be often.

The first step, as in any purchasing system, is

CATALOGUE INDEX				
CATALOG NO.	NAME OF CONCERN	GOODS	PIGEON HOLE NO.	REMARKS

CATALOGUE INDEX				
CATALOG NO.	GOODS SOLD	NAME OF CONCERN	PIGEON HOLE NO.	REMARKS

Form I; loose leaf catalogue index on which all catalogues are entered. Form II; reverse of Form I on which is entered the catalogue number, goods the concerns sell, name and pigeon-hole number

the accurate filing and recording of catalogues and price lists. Each catalogue or list, when received at the office, is given a number for identification. This is best done by attaching a distinctive gummed label to the front cover or on the backbone. If preferred, the identification number might be put on with a blue pencil, but this is generally not as distinctive and it will pay to take the time to attach a distinct label for each book. In case of a new list which takes the place of an old, the new one

**First Step in
a Purchasing
System**

is given the number of the old, and unless desired for reference the old catalogue is discarded.

The best arrangement for keeping track of catalogues or lists is a cabinet having pigeon-holes of various sizes. These holes are numbered, the smallest compartment being No. 1, the next larger No. 2, and so on.

Each catalogue or list is then indexed, the form of card index used being shown in Figure I. The information that is necessary on the obverse side of the sheet

QUOTATION CARD					
NAME OF ARTICLE					
SIZE			QUANTITY DESIRED		
TYPE LETTER	CONCERN	TERMS			TIME NECESSARY FOR DELIVERY
		PRICE	QUANTITY	FREIGHT	

Form III; card on which all quotations are entered

is as follows: Catalogue number; name of concern; goods handled; compartment number; remarks.

Figure II shows the reverse side of this form, being used as an index to the goods or supplies handled for the various firms. This gives in detail: Catalogue number; goods sold; name of concern; compartment number; remarks. These sheets are indexed alphabetically. When quotations are wished on a certain line of goods, for instance, belting, the names of all the firms handling belting will be grouped together under the

B's, and these firms may be written to as desired for their quotations.

Upon receipt of quotations from the various firms, entries are made on the "quotation card" shown in Figure III. The use of the special quotation card is made necessary by the fact that there is not room on Forms I and II to give enough detailed information of a class of goods to be of use. These cards make a detailed quotation record that is of great service for reference as a guide to future buying.

One of the primary essentials of a purchasing department system is that there be a means of reporting

Factory Wants	stockroom wants far enough ahead, so
and the	that the purchasing agent may order what
Purchasing	is needed. The ordinary run of goods or
Department	supplies, such as are subject to the same conditions

month after month, constitute one class of supplies, which are ordered by the purchasing agent on notification from the storekeeper that the amount in the store room has reached a certain point and that the probable demand will be a certain amount. Another class of supplies is made up of new material or supplies not commonly kept in stock. Requisition for the second class must come from the superintendent or acting superintendent.

It is therefore seen that there are three classes of purchases as regards the point from which the order issues:

- (1) Orders originating with the superintendent.

- (2) Orders originating with the storekeeper.
- (3) Orders originating with the purchasing agent himself.

Theoretically, the superintendent is the one from whom all orders issue, but it is generally not practicable for him to issue any orders except those which call for any new material or a certain amount of material costing above a certain sum. The reason for this is,

REQUISITION NO. 344		DATE..... 192...
FOR DEPT NO. TO PURCHASING DEPARTMENT		
PLEASE ORDER THE FOLLOWING:		
QUANTITY	DESCRIPTION	

Form IV; the superintendent's requisition blank

of course, that there is no necessity for burdening a superintendent with any detail that can be intrusted to the purchasing agent.

The superintendent's requisition is shown in Figure IV. This blank is so ruled as to show requisition number, date, and order. These forms are made up in a book to be used in twos, the original and duplicate. A similar requisition may be made by the storekeeper, as a notification to the purchasing agent that his stock is running low. The duplicate sheet is retained by the

one issuing the requisition; the original going direct to the purchasing department.

It then devolves upon the purchasing department to secure quotations upon the material or articles requested in the requisition. The purchasing agent familiarizes himself with the requisites of the order, when the material will be needed, class of work in which it is to be used, and any other details bearing in any way upon the purchase.

The next step is the issuance of the requisition. This embodies any conditions effecting the delivery of the goods and any agreement made by the acceptance of the order by the house from which that purchase is made.

The requisition is made out in triplicate, the original going to the firm of which the goods are ordered, the second copy remaining as a reminder in the purchasing department. The copy which is retained by the department has spaces for the entry of the following: Date of letters or other communications; remarks; dates of receipts of goods. This card is kept in the live file, often termed the outstanding order cabinet.

Where a large number of requisitions are kept in the outstanding order cabinet or file, some of them may need attention from time to time by means of follow-up letters. The method of putting out these follow-up letters that is usually used, is to attach a date clip showing time of probable delivery or time that correspondence should

Following
Up the
Requisition

PUT OUR REQUISITION NO. 1875 ON ALL INVOICES.	CHICAGO, ILL., ----- 190----- TO ----- ----- PLEASE ENTER OUR ORDER SUBJECT TO THESE CONDITIONS : Shipping Memo. must accompany each Shipment. Mail Bill in Duplicate at time of Shipment. In acknowledging this order, please state DEFINITELY when shipment will be made. Charges for Boxing and Carting WILL NOT be allowed. Ship via -----
BY ----- PURCHASING AGENT	

Form V; order which the purchasing agent issues for all goods bought

issue, on the top of the order sheet. The clips for the same date being arranged in a straight line it is an easy matter for the order clerk to pick out those under

the same number on the morning when attention is due them.

A system somewhat more complicated but perhaps more satisfactory in some ways is as follows: A separate card may be made out for each order and filed in an envelope having the folds numbered from 1 to 31. The card bears the order number and date of delivery, the card then being placed in the number corresponding to the day and the month in the envelope. If preferred, the regular follow-up cabinet may be used instead of the envelopes as it will usually be found much more satisfactory and more modern than the old envelope system.

In case an order is not due when it should be, the clerk notifies the purchasing agent, who gives it the proper attention, and the card is filed ahead so as to come up for attention when necessary. This will be repeated until the entire consignment of goods has been checked off, the cards being then destroyed. The success or failure of any purchasing system depends to a large extent upon the means and methods used in this follow-up method. There must be no guess work or inaccuracy at this point; the slightest derangement of any part of the purchasing system at the follow-up point may cost a most disproportionate amount of money, and mistakes should be carefully looked for here.

A side record that is often kept and that is a great use as a means of information is a loose-leaf book made

Delayed
Goods

The Daily Report

[illegible]

Form VI; receiving sheet on which the receiving clerk enters the particulars of all goods received

The third copy of the requisition goes to the receiving department, this so that it may be filed according to classification of the supplies. When shipments are received the details of the receipt are entered on the daily report.

This form, as its name indicates, is a complete record of the receipts of the department for the day. When all these receipts are in, the form is sent to the purchasing department where the order clerk takes out the follow-up cards, which this form nullifies, and de-

[illegible]

proper provision will be made for it by placing a card in the file.

Figure VII shows the distribution sheet, on which when the invoice is received, is entered the data shown. Prices are verified from the quotation and extension proved. The invoice date and price are now entered on the stock sheet, the total of the invoice then being entered on the receiving sheet, the number showing in how many separate shipments the order was received.

and production a careful comparison can be readily made.

So far, no mention has been made of returned goods or supplies. When these are returned to the firm from which they were bought they are entered up in a return

PRODUCTION										
	C. R. STEEL	SCREW STOCK	BRASS ROD	COPPER ROD	GERMAN SILVER	CASTINGS	CASTINGS	FORGINGS	SCREWS	
						GRAY IRON	MALLEABLE			
JAN.										
FEB.										
MAR.										
APR.										
MAY										
JUNE										

Form VIII; loose leaf invoice book in which each invoice is entered under the account for the material bought

book by the shipping department and invoiced back to the selling firm from this record.

This system will be found as comprehensive as is necessary in the ordinary factory or works employing up to 500 men. Should it be desired to extend any of the records or make them more minute, it is only necessary to make the records more comprehensive as to detail.

CHAPTER XV

A SYSTEM FOR FACTORY PURCHASES

BY CARLETON DAVIS

Purchasing departments handicapped by a lack of method in the factory and in the office, have many of their good points depreciated and much of their effort defeated because of that lack of system.

This chapter will present suggestions for a practical organization in all departments, without which no buyer can make his efforts productive of much good. systematic concerns manufacture on "factory orders" or "job numbers," and all material and labor pertaining to that particular lot of goods is charged to that number.

The factory makes out requisitions to the purchasing agent for any material required, which should specify whether any goods are for stock or for a specific order or purpose, giving the order or job number and stating as near as possible when wanted. These requisitions may be made in duplicate by a superintendent, or by his foreman, and approved by him and numbered so as to allow comparison in case of question. The original is to be sent to the buyer and the duplicate to the receiving clerk.

Perhaps the purchasing agent knows where to buy but must ask for quotations before making a purchase.

This often delays a shipment a week or longer. A little system in the shape of a catalogue file will remedy these defects, keeping his catalogues and pamphlets in numerical order, etc., all catalogues pertaining to one class of goods being under the same number—for catalogues of hardware, No. 1, tinware, No. 2, emery products, No. 3, etc. These books, circulars, etc., must be numbered

Filing
Catalogues

BRUSHES MOLDERS-SOFT			BRUSHES <i>Kire</i> MOLDERS-HARD			BRUSHES PAINT-ROUND				
DATE	LETTER NUM	NAME	ADDRESS	CATALOG NO	PAGE	PRICE LIST	DISCT	NET	REMARKS	
1907	79	Becker & Co	Chd	10	71	60	50	40	30	2 Dg Lts
7/1	18	D. W. Mayne	Chd	17	67	40			78	1 Dg Lts
7/1	17	Grand Co	Chicago	9	15	31	50	40	30	3 . .
7/1	51	S. D. Taylor	Pgh	5	18	75	48	40	79	1 . .

Figure I

accordingly when filed. To find what he wants the agent should have a system of numbering and lettering the cards (Figure I) which makes them accessible without a moment's delay. A reference to this same card also shows quotations, and the agent may dispense with the carrying of discount sheets which are usually of a standard form.

The column thus provided furnishes dealer's list, or net price, and discount and terms. This enables the buyer to either purchase at once or furnish his stenog-

rapher with the names of concerns from whom quotations have been received, and inquiries are immediately sent out for prices. As their quotations are received they are recorded on proper cards and it is not necessary to refer to letters after filing them away.

The use of a numerical file for correspondence and invoices is recommended. All letters from one person or concern are filed under the same number and when wanted, the index card indicates the folder containing correspondence or invoices from that person or concern. If carbon copies of letters are taken, all letters and replies thereto are in one folder. The number the buyer records on his quotation card ledger so that if a letter should be wanted he can procure it direct from files without further reference to other indexes.

The order should be made in triplicate, the original going to the concern furnishing the goods, the duplicate remaining on file with the buyer and the triplicate being sent to the receiving clerk. This blank should contain space for terms, prices, whether goods are bought on contract or quotation, on whose authority and when, where and how to be delivered, and a space to record factory requisition number and job number on which goods apply. These orders of the purchasing agent should be numbered consecutively, and should demand of the consignor that invoices for goods, and packages themselves bear his order number. This will save much time and trouble in handling inbound goods.

*triplicate
letters*

Now, a proper form on which the receiving clerk can notify the purchasing agent of the receipt of the goods is needed. For this purpose a goods received slip is provided (Figure II), and answers many needs. It is made in duplicate and both are sent to him to check with invoices when they are in. He retains the original, puts prices

GOODS RECEIVED SLIP				
FROM <u>James & Langhline</u>			DATE <u>January 2 1921</u>	
<u>Pittsburg</u>				
REC'D BY <u>Donnell</u>	CHECKED BY <u>Donnell</u>	ONLY	PASSENGER	
OPENED BY <u>"</u>	ENTERED BY <u>Bauer</u>		<u>Penn</u>	RAILROAD
QUANTITY	ARTICLE	PRICE	STORAGE	
10000	4x x 1/2 <u>Conn Steel</u>	12.5	Dept 1	
5000	3/8 x 1/2	.	.	
7000	1/2 x 1 1/4	.	.	
10000	1 1/4 Round Old Steel Cut 12	1.50	Dept 2	
3000	1 7'	"	.	
REMARKS <u>Penn Co. Dec 1921</u>				
<u>all bills slightly under</u>				
				<u>Willard</u> RECEIVING CLERK

Figure II

in the duplicate and returns it to the receiving clerk, which indicates to him that the goods are o. k. and the stock clerk records the receipt of goods and prices in his stock ledger.

As the receiving clerk has a copy of the factory requisition, and a copy of the order for the goods, he is in a position (when goods are received) to report

them understandingly, and to deliver goods when wanted, or notify the party wanting them. This triplicate order also advises the superintendent that the goods have been ordered on his requisitions, and saves questions between him and the buyer. If it is not wished to have the factory know the prices, terms, etc., the triplicate blank may be made enough narrower to cut off that part.

COLD ROLLED

1/2 x 1 1/2

COM R

1/2 x 1 3/4

COM R

1/2 x 2

COM R

REQUIREMENTS				PURCHASE RECORD				RECEIPTS				UNIT
DATE	REQ NO	AMOUNT	JOB NO	DATE	ORDER NO	PURCH. OF	AMOUNT	DATE	PURCH. NO	AMOUNT	COST	
6/2	10	1500	62	6/2	619	J & K	1500	7/2	619	800	0.130	
6/30	26	7000	85	7/1	695	Carrigan	7000	7/5	"	725	0.130	
7/10	18	2000	71	7/10	721	"	2000	7/15	695	2180	0.125	
7/15	29	3000	96	7/15	752	"	3000	7/28	752	5150	0.125	

Figure III

The same is true of the goods received slip, although it is well to have prices on the stock ledger so goods may be charged out at the prices paid when purchased. After the goods are received and the goods received slip checked with the invoice, the same is entered on a card (Figure III) which is a record of requirements, when and for what order required, and number of the order for goods. The receipts are now entered against the requirements and the prices paid if wanted, and this gives a ledger account of purchases and re-

ceipts. Much of this work can be done by a stenographer or an inexpensive clerk, and covers information frequently called for.

This ledger is to be divided first by stock name, alphabetically arranged, and afterwards by classification of stock itself and its sizes. As an addition to this it is advisable to keep a "buyer's guide," or index of

RECORD OF CONTRACT			
WITH	<i>Pennington Iron Co.</i>		DATE <i>Aug 1, 1921</i>
ADDRESS	<i>Pittsburgh, Penn</i>		EXPIRES <i>July 1, 1922</i>
MAT'L	<i>Bar Iron</i>	PRICE <i>8.55</i>	TERMS <i>2-10-60 d.</i>
MAT'L	<i>Bar Steel</i>	PRICE <i>1.40</i>	TERMS <i>"</i>
MAT'L	<i>Spring Steel</i>	PRICE <i>2.50</i>	TERMS <i>"</i>
MAT'L	<i>Hoop or Band</i>	PRICE <i>2.70</i>	TERMS <i>"</i>
MAT'L		PRICE	TERMS
F.O.B.	<i>Pittsburg</i>	FRT ALLOWED	<i>Columbus, O.</i>
REMARKS	<i>No. Minimum or Maximum</i>		
	<i>Desired Supply Approx 2000 Tons</i>		
	<i>Iron & S. Spring 75 cws Hoop 1 to 2 Tons</i>		

Figure IV

addresses of concerns making goods which may be needed in the business.

This guide or index may be on cards similar to those in the quotation index (Figure I) except that they be of a different color. They may be filed in drawers with quotation cards.

This gives for handy reference, the names of parties handling such goods as may be needed from time to

time. This guide can be of inestimable value if the names of parties making and handling goods likely to be wanted are looked up and recorded here. As quotations are received from time to time they are recorded (Figure I) and the card is removed from "buyer's guide."

As contracts are completed the paymaster is furnished with a record of prices, terms, delivery points, and anything which will enable him to make settlements without having to refer to the contract. This is made in duplicate (Figure IV), duplicates being kept in alphabetical order in a small desk tray or single drawer cabinet. The paymaster has them kept in the same manner, and the system permits the keeping of the contracts in the vault where they should be, and in many ways saves its cost. Purchases are often made without obtaining quotations, of small lots of special goods of which a card record should be kept. A separate division may be kept in the stock ledger of such random purchases, or a color scheme may be used as in the quotations and buyer's guide.

Invoices should bear the filing case number so that the stock ledger card (Figure III) will show in what folder it may be found. Invoices are stamped with a rubber stamp (Figure V), the required information for the paymaster is filled in and sent to him ready for payment. As the stamp provides space to record date of payment, he can refer to his copy (Figure IV) and verify prices, terms, etc., without trouble.

By recording filing numbers of invoices and purchase order number, the bookkeeper has immediate reference both to the files and your orders and can treat with the purchasing agent intelligently, if occasion arises. Copies of purchase orders should be filed numerically after they have been filled, not before. Any order wanted can be found quickly by referring to the stock ledger. Orders not completed should be filed alphabetically so they may be found at once, irrespective of their date or number.

The margin and blank space on the copy of order may be used to record dates and file numbers of correspondence, promises of shipment or other information concerning the order before it is completed. All necessary information is on the order proper, saving time in searching files for letters. When there are many unfilled orders at one time it is well to have a "tickler"

REC'D <i>7/20/21</i>		
CK WITH ORDER <i>J.M.H.</i>		
PRICES O.K. <i>X.M.D.</i>		
EXTENSIONS O.K. <i>X.M.D.</i>		
ADD FRT		
DEDUCT FRT		
PAID BY <i>Chick</i> <i>19.70</i>		
<i>7/30 1901</i>		
DISTRIBUTION		
CHARGE TO ACCOUNT	# 10	51.60
	<i>Stores</i>	18.40
	<i>Material</i>	195.75
TOTAL		265.75
FREIGHT		19.70
TOTAL INVOICE		285.45

Figure V

system which will enable all orders to be followed up from the time they are made until filled.

There is another convenient arrangement which, if used properly, will bring the best results. It is intended to be used in a small desk tray and guided by monthly and daily guides. Each day as orders are made out a corresponding slip is made (Figure VI). In column "ac-

The
Delivery
Reminder

ORDER NO. <u>756</u>		DATE <u>July 20</u>		190 <u>1</u>	
TO <u>Janasong & Co.</u>					
ADDRESS <u>Pittsburg</u>					
FOR <u>Raw Bar Steel</u>		<u>5000 "12"</u>			

ACKNOWLEDGED		SHIPT PROMISED		RECEIVED		REMARKS
DATE	WROTE	DATE	WROTE	DATE	AMOUNT	
7/24	7/24	7/1	7/7	7/12	5125	
7/27		7/6				
7/28						

Figure VI

knowledgeed" a date is inserted, allowing ample time for letter to arrive. In this case on July 20 the order was made. July 24, no acknowledgment having been received, the stock clerk refers the card to the purchasing agent.

A letter is written and the date inserted in "wrote" column, also note of date of reply should be had. The stock clerk places the card under date of July 27. The

card, however, shows acknowledgment was received July 25 and promised shipment August 1. The stock clerk places the card under August 7, allowing one week for goods to arrive.

In the absence of goods or any notice of shipment the clerk turns in the card for attention by letter on August 7. In this case the slip shows the shipment was made on August 6. Now the card is placed ahead several days to allow time for shipment to arrive.

On August 12 the shipment was received and order filled, receipt being noted on the card and which is returned to the purchasing agent as advice that the order is complete. As the card has now performed its full duty it may be filed or thrown away, as thought advisable. This file may also be used to advantage to call attention to engagements, expiration of contracts, matters which should receive attention on certain days, etc.

This system was devised for one of the largest factories in Ohio and the purchasing agent, after giving it a thorough trial, pronounced it so satisfactory that he has since been doing the buying also for three other factories of this same corporation. The delays which were so frequent under the old plan have entirely disappeared and the petty annoyances are things of the past. There is no factory where this system can not be operated with equally satisfactory results.

CHAPTER XVI

A SYSTEM FOR PURCHASING

BY CHARLES P. BELDEN

Purchasing Agent the Kellogg Switchboard and Supply Company

Nowhere are the opportunities for the intelligent application of a system greater than in an electrical

CARD NO. _____								
LOCATION <u>Sec. A-15-</u>				PIECE NO. _____				
DESCRIPTION <u>"7/22" hand rubber sheet</u>								
				MAXIMUM <u>500 lb.</u> MINIMUM <u>100 lb.</u>				
7								
DATE	MATERIAL ORDERED		MATERIAL WANTED FOR		DELIVERIES AND RECEIPTS			AMOUNT ON HAND
	ORDER NO.	AMOUNT	ORDER NO.	AMOUNT	DATE	ORDER NO.	AMOUNT	
4/10/21	17824	200 lb.						
			19063	50 lb.	4/10	17824	200 lb.	200 lb.
					4/11	19063	50 lb.	150 lb.
4/15	20023	150 lb.			4/14	20023	150 lb.	300 lb.

Figure I; (deliveries and receipts are distinguished by red and black ink)

manufacturing plant, particularly as exemplified in a plant which manufactures complete lines of telephone apparatus. An example of such a plant is furnished by the Kellogg Switchboard and Supply Company of Chicago. It will give some appreciation of the complexity of detail involved in this business to consider

that 900 distinct types of finished apparatus are coded and manufactured.

This apparatus is composed of units or "piece-parts" to the number of 4,128, and it requires 4,034 different drawings or blue-prints to guide the work of manufacturing.

For manufacturing purposes this company is divided into fifteen different departments. Each depart-

No. 18901.	Date August 13 - 1903.
Account of # 28472 and stock.	
Deliver to. Stock "K"	For
400 lbs. 6 end green Italian	
Tram silk on wood spools.	
Deliver 50 lbs. weekly, beginning	
September 1st.	
Pur. No. 30025	Signed E. K. Approved J. D. E.

Figure II

ment is in charge of a foreman. Through the application of a system the company aims to relieve these foremen of all detail work, and thus enable them to devote their entire time and energies where they belong—to production. One method of accomplishing this is by systematic handling of raw material stocks.

An almost infinite variety of material, purchased from more than five hundred different firms, is used. This material is kept in seven different stockrooms, each manned by a stock clerk and assistants, and all

in charge of a head stockkeeper. This forms an organization that relieves the foreman of all detail work in connection with raw material.

The stock clerks keep track of their stocks on the card shown in Figure I. These cards are filed in pigeonhole racks, within easy reach of the stock clerk. They show purchase number for all the stock ordered, the ship order number for all stock issued, and they

[illegible]

Figure III

furnish a running inventory of the amount of stock on hand. All orders for stock pass through the hands of the head stockkeeper, who issues a requisition in triplicate; one copy is retained by the purchasing department, one copy sent to the particular stockroom where it originated, showing outside purchase number, and the third copy, on tissue paper, remains permanently bound in the head stockkeeper's requisition book. A copy of this requisition is shown in Figure II.

In the head stockkeeper's office, the card shown in

Figure III is kept in a vertical numerical file. By referring to a handy index book, a brass sheet, for example, will be found under classification No. 162, and in time there will be several card numbers for each classification. Thus, all information regarding brass sheet will be

The System
Employed in
the Stockkeep-
er's Office

KELLOGG SWITCH BOARD AND SUPPLY CO.			
CONDENSED AND CASH ORDERS			
ORDER NO. 00000	CHICAGO, ILL.	QUANTITY 100	QUANTITY 100
PUT THIS NUMBER ON ALL BILLS AND INVOICES.		DATE August 12, 1912	NO. 2
Sawyer & Co. Company.			
Philadelphia, Penna.			
PLEASE FILL THE FOLLOWING ORDER OBSERVING EXACTLY ALL INSTRUCTIONS HEREON			
400 lbs 6 and green 9 inch tram with one wood spool - Deliver 50 lbs. weekly, beginning September 1st.			
WHEN ORDERED, as above		ORDER NO. 1K902	DELIVER TO S. B. S.
SHIP VIA		FOR 21412	
TO			
TERMS		KELLOGG SWITCH BOARD & SUPPLY CO.	
NOT RESPONSIBLE FOR ORDER		PURCHASER'S AGENT	
WHEN DELIVERED ON A MONTHLY BASIS		FOR	

Figure IV

found grouped on a series of cards, all of classification No. 162. Each stockroom is lettered, and the destination of the various orders is noted in the last column.

When a manufacturing order is issued the stock clerk checks it over against his stock of material on hand or due on orders. If a fresh order is necessary, it is exactly proportioned to the requirement. I ven-

Form 24.	Date <u>Aug. 21/03.</u>
Order No. <u>30241</u>	
Name <u>Elect. Storage Co.</u>	
Should have attention on dates shown below.	
JAN.	
FEB.	
MAR.	
APR.	
MAY.	
JUNE.	
JULY.	
AUG.	<u>21</u>
SEPT.	
OCT.	
NOV.	
DEC.	

Figure V

ture to say that less than 1 per cent of our entire stock could be classed as obsolete or useless, and even this small proportion is mainly due to unforeseen or sudden changes in apparatus specifications.

The column headed "price" furnishes the cost department a handy reference to prices of each particular lot of material used on the various manufacturing orders, and the figures are copied from the invoices

Inquiry No. A 877	Date <u>Aug. 16</u> 1903
Kellogg Switchboard & Supply Co., Congress & Green Sts., Chicago. Purchasing Department	
Messrs. <u>Wabash Cabinet Co.</u>	
<u>Wabash, Ind.</u>	
Dear Sirs:-	
You hold our order No. <u>20781</u> --	
dated <u>June 14</u> 03	
Please advise at once what date you expect to ship.	
 <u>Please hurry!</u>	
 <i>A definite and reliable promise is desired and will be appreciated by,</i>	
Yours truly,	
KELLOGG SWITCHBOARD & SUPPLY CO.	
<u>C. P. Fadden.</u> Purchasing Agent.	
<u>Per H. B.</u>	

Figure VI

themselves. This is particularly useful where constant fluctuations occur in prices. The quotation-cards shown in Figure XI are hardly adapted to recording every such temporary price change.

After approval of a requisition by the shop superintendent, the purchasing department issues its formal order in triplicate (Figure IV). The original, of course, goes to the vendor, the second or "yellow" copy goes to the receiving room and is filed alphabetically to assist the receiving clerk in checking the goods and routing to the proper stockroom. The third or "pink" copy is filed numerically in the purchasing department. On the reverse of this copy a simple form is printed, with spaces for recording all correspondence, receipts and invoices relating to the order. These sheets are handled by the "follow-up" clerk, who records on the back of the order all information received in connection therewith. The "tickler-card" (Figure V) is worked only in connection with certain orders that seem to need special attention.

Thus a complete history of each order is available in the purchasing department. As orders are completed, the pink copies are removed to a permanent numerical binder.

In any manufacturing establishment, and particularly in this one, accurate information in regard to delivery of materials is very essential, and the inquiry form shown in Figure VI is found useful. These are bound in book form and a carbon copy retained for reference. Figure VII is printed on a self-addressed postal card and enclosed with some orders. The returned cards, containing promises, are filed in a small desk-drawer card file.

Keeping Information of the Delivery of Goods

When material comes into the receiving department, weight and count are ascertained and verified with invoice, if that is available, and delivery is made to the proper stockroom, accompanied by a simple memorandum, made on an autograph register (Figure VIII). One copy of this memorandum is retained by the receiving department and a third sent to the head stock-keeper, who notes the data therefrom on his material

Please acknowledge accompanying order on this card or otherwise. State WHAT DATE goods will be shipped or ready for shipment. Accurate information on this point is very important to us.

Form 348 **KELLOGG SWITCHBOARD & SUPPLY CO.**

KELLOGG SWITCHBOARD & SUPPLY CO. Date April 2/03

Dear Sir: Your order No. 24281 at hand and will be ready on June 20

Yours truly,
Holtzer-Cabot Elect. Co.
 H.

Figure VII

card (Figure III). The memorandum is then passed on to the purchasing department, which records receipts on back of their copy of order.

The receiving record consists of a series of cards. A separate card, such as the sample illustrated in Figure IX, is kept for each firm, and is filed alphabetically in a vertical box file, supported on a roller-truck or pedestal, that may be moved into the vault at

night, or convenient to any desk during the day. These cards furnish a compact and complete history of transactions with every firm with whom the purchasing department has dealings. It will be noticed that when the invoice date and voucher number are checked off against receipts, the presentation of a duplicate bill will be detected immediately. In the column headed "via" is also noted the amount of freight or expressage paid.

No 27903	
FROM	American Screw Co.
ORDER NO.	29251
DATE	August 15, 1932
FOR	Stock C.
300	qrs. $\frac{1}{4} \times 4 \frac{1}{2}$ g. h. brass mach. screws.

Figure VIII

At the end of every month or less the cards of all concerns whose quotations are f. o. b. Chicago are checked over and proper charges on this account are made. There is room for a considerable leak in this matter of freights if not closely watched.

These receiving cards are printed on both sides, and each card affords space to record many receipts. Only "live cards" are kept in the movable box-file; dead ones are put in a "cemetery," but may be readily disinterred on occasion.

Bills are vouchered monthly, or oftener if cash discounts are allowed, and all bills on the same voucher number are securely clamped together, with the corresponding number stamped on the back in a rubber stamp form, shown in Figure X. Bills are filed alphabetically in vertical file, and carbon copies of all vouchers are also filed in alphabetical folders in different drawers of same cabinet.

RECEIVED FROM <i>Co. D. M. Co. Ansonia, Conn.</i>						CARD NO. <i>6</i>	
DATE	ORDER NO.	AMT.	DESCRIPTION	USE	ORDER DATE	AMOUNT	VOUCHER NUMBER
Mar. 20	25462	75 00	# 35 D. 72. 1/4" lined copper strip - 12 spools.		3 15	59 92	
	25105	774 1/2	# 24 T. C. wire. 80 spools.	Standard	3 10	59 92	
	1815	18 1/2	# 24 " " " 185 "		4 15	59 92	
	24904	118 1/2	# 30 D. " " " 36 "		3 10	59 92	
	302 1/2	72	# 30 " " " 72 "		3 10	59 92	
	866 1/2	108	# 30 " " " 108 "		3 12	59 92	
	24977	105	# 20 T. " " " 10 "	Std. X 3-02	3 26	59 92	
Apr. 2	26213	118	# 33 D. " " " 73 "		3 24	60 91	
	26118	250 1/2	# 36 " " " 200 "		3 25	59 92	
	126	100	# 36 " " " 100 "	Standard	3 24	60 91	
	134 1/2	100	# 36 " " " 100 "		3 25	59 92	
	25165	426 1/2	# 24 T. " " " 40 "		3 17	59 92	
	1169	108	# 24 " " " 108 "		3 26	59 92	

Figure IX

The grouping of all bills and copies of vouchers belonging to each firm makes it easy to discover whether any bill is a duplicate of one already vouchered, and is an additional safeguard to the method, already explained, of detecting a duplication by means of the receiving card. No record appears on the receiving cards of certain transactions, such as legal ser-

vices, electric current, insurance, or similar intangible items, but bills for just this sort of matter need specially close watching to avoid the danger of paying for the same thing twice. This danger is reduced to a minimum by carefully scrutinizing the voucher and bill-file before certifying new bills.

The originals of the vouchers are entered in a voucher journal by the company's accounting department, and at this point the purchasing department steps out of the transaction. The retention of the

GOODS REC'D	8/20 - 8/22	H.S.
EXTN. O. R.	E.C.	LISTS O. R. C. 9.
BILLS REC'D	AUG. 19, 1903	
PRICES CORRECT	S. Hartman	
O. R.	P.B.H.	
VOUCHER NO.	7957	

Figure X

original bills by the purchasing department as just described gives a price-record, valuable by reason of its accessibility. This price-record is supplemented by the quotation card illustrated in Figure XI. This provides a means of recording quotations on the same article from five different firms at several different dates, and is filed alphabetically.

The return of goods to firms in the city is of frequent occurrence, and is handled by means of form shown in Figure XII. This is left with the dealer, who

receipts for goods on a carbon copy, which substitutes a receipt form for the last two lines of the form illustrated. A tissue copy remains in the binder and serves as a check to insure that due credit is always given for returns, in case "bill-back" does not accompany the goods for any reason.

When goods are returned to firms out of the city,

[illegible]

Figure XI

the matter is handled by means of a regular shipping-ticket, entered by the order department on memorandum from the purchasing department.

The company is constantly installing central exchange switchboards in all parts of the country, and

Shipment of Goods From the Outside

shipments of machinery and other apparatus are frequently made direct from various manufacturers to these installa-

tions. In like manner goods not manufactured or carried in stock by the company are shipped from the outside direct to customers.

KELLOGG SWITCHBOARD & SUPPLY CO.,	
Chicago and Green Street	1297
CHICAGO, ILL. <u>Jan. 6,</u> 1913	
M. Automobile and Cycle Parts Co.	
6130 La Salle St. Chicago.	
Dear Sir: We return to you today, Via <u>Hastings Ex.</u>	
goods mentioned below, received <u>Dec. 24</u> 1912 on our Order No. 16434	
Reason returned is <u>imperfect</u>	
2 bbls. relay shells.	
Above billed to you on	
Our Invoice No.	D-128
See our Order No. 16823 to replace.	
Please <u>do not fail</u> to promptly render us proper credit memorandum unless invoice No. appears above.	
Very truly yours,	
KELLOGG SWITCHBOARD & SUPPLY CO.	

Figure XII

The form shown in Figure XIII is used to notify the order department or installing department of such shipments. The numbered carbon copy of this memorandum of shipment is retained by purchasing depart-

ment until the original is returned. The number of the memorandum is stamped on the invoice to which it refers, which is then vouchered immediately, if the seller is known as a reliable firm, without awaiting certification of the receipt of goods. Thereby cash discounts

MEMORANDUM OF SHIPMENT.		No. 303							
Aug. 18 1903 <i>Mr. P. S. Smith Installing Dept.</i> <i>We have inclose covering shipment of material as noted hereon.</i> <i>Please see that this is properly charged to customer or O. K.'d by our installer as the case may be. Return to Purchasing Department, endorsed either as "Charged" or with installer's O. K.</i> <i>Yours truly,</i> G. P. BELDEN		<i>From</i> Greene Knide Elec Co. <i>Dated</i> Aug. 5 1903 <i>Via</i> American Express <i>Part Order No.</i> 29303 <i>S. T. No.</i> 25433 <i>Shipped to</i> Interstate Tel & Tel. Co., <i>Durham, N.C.</i> <i>Charges</i> 1.00							
FORM 574 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; text-align: center; padding: 2px;">QUANTITY</th> <th style="width: 40%; text-align: center; padding: 2px;">DESCRIPTION</th> <th style="width: 10%; text-align: center; padding: 2px;">UNIT</th> <th style="width: 20%; text-align: center; padding: 2px;">PRICE</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td style="text-align: center; vertical-align: middle; padding: 10px;"> 5 amp. D.F.D.T. No. 7. "G" knife switch back on, wood 125 volts full comp, legs "Special" to make contact on one side before breaking on other side. </td> <td></td> <td></td> </tr> </tbody> </table> <i>Charged per</i> _____ <i>Date</i> _____ <i>Items rec'd O. K. For</i> _____ <i>Date</i> _____	QUANTITY	DESCRIPTION	UNIT	PRICE		5 amp. D.F.D.T. No. 7. "G" knife switch back on, wood 125 volts full comp, legs "Special" to make contact on one side before breaking on other side.			
QUANTITY	DESCRIPTION	UNIT	PRICE						
	5 amp. D.F.D.T. No. 7. "G" knife switch back on, wood 125 volts full comp, legs "Special" to make contact on one side before breaking on other side.								

Figure XIII

are saved to the company, which would be lost if the report of some installer two or three thousand miles away were to be awaited.

The system outlined here gives a record of orders, receipts, and prices, classified by materials and by firm names, and has been found practical, if not ideal. To

attain and put in practice the ideal system, the conditions under which it must operate, such as office layout or character of help employed, should be ideal. Unfortunately such a millennium has not arrived, so far as most of us are concerned, and we must be content for the present with a system that applies to our needs and surroundings.

CHAPTER XVII

A COMPREHENSIVE PURCHASING SYSTEM

BY M. M. CHASE

The purchasing system of the Stilwell-Bierce & Smith-Vaile Co., was designed and put into actual use in their shops by Mr. Charles W. Haas, their purchasing agent, well known as a systematist of ability.

This company operates three large plants known as West, East and South Shops. As these plants are situated some distance apart, and are operated separately, the duties devolving upon the buyer, who purchases for all, are many and somewhat laborious. Again, the varied line of goods manufactured by them, consisting of cotton seed, linseed, and corn oil mills, air compressors, steam and power pumping machinery, filter presses, feed water heaters and purifiers and turbine water wheels makes the line of material to be purchased not only large and very exacting, but the great variety of goods made, many being of a special character, brings frequent and trying demands upon the purchasing department.

In order to successfully cope with these difficulties Mr. Haas has in use to-day a system which is far reaching and tends to reduce effort to the minimum, yet permits him to handle their vast interests with accuracy and despatch.

The system here described seems not only to contain all the essential features of a practical scheme for the purchasing department of a large concern, but is the "cream" itself of many systems in use throughout the country.

Such goods as are considered standard, embracing certain pumps and feed water heaters, are handled by the factory on standard drawings and specifications. Special goods are handled by working drawings and specifications furnished by the drafting department.

As product is to be manufactured orders are placed in the hands of the superintendent of the shop in which it is to be made, and on receipt of specifications in the stock department, such material as is lacking is called for on requisitions for material which are sent to the buyer. See Figure I.

The different shops have different colors for their respective blanks, as well as separate order numbers, so as to quickly distinguish one from the other. Each shop operates under its own account numbers also.

The material and supplies used by the foundry are purchased on requisition made by the foreman of that department direct to buyer. The same is true of material required by the electricians, supplies for the office, and sundry items of shop expense, and the buyer uses his personal judgment from past experience as to quantity, etc., to be bought. The same routine is followed by all departments as to duplicate requisitions.

The
Requisition

REQUEST FOR QUOTATION

no 1242

The Silcock-Bauer & Smith-Velle Co.

Apr 16/1901

For Supply of
material 18-16

(NOTE:—To use order more than one kind of material on this Request, attach separate sheets for each item, and state full description in detail. This receipt or receipt shall form the basis of the contract and shall not be taken as a receipt for cash.)

MATERIAL WANTED.

25 plates tank 116 x 72 x $\frac{1}{4}$

25 " " 116 x 62 x $\frac{1}{4}$

25 " " 129 x 84 x $\frac{1}{4}$

10 " " 98 $\frac{1}{2}$ x 72 x $\frac{1}{4}$

10 " " 116 $\frac{1}{2}$ x 72 x $\frac{1}{4}$

25 " " 183 $\frac{1}{2}$ x 72 x $\frac{3}{8}$

Rock Steel Co.

Cincinnati, O.

Replying per contract

38399

Figure I gives shop or job order number and the account to which goods are to be charged. An accurate description is required of the material to be purchased and the quantity needed. It is signed by the storekeeper and approved by the superintendent in duplicate, original is sent to the buyer, duplicate being retained by the party issuing it.

At the bottom of the form is a "memorandum" slip; this slip is filled out by the purchasing department and is sent to party issuing the requisition. It gives date order was received by the purchasing department and the consecutive number of purchase order, thereby enabling the shop to treat with the buyer intelligently if necessary to do so before goods are received in stock department.

On the duplicate is space for the storekeeper issuing requisition to note the order number of buying department. This original requisition is approved by the buyer, who, from long experience, is familiar with the material wanted and the best and quickest method of obtaining it.

He notes thereon where he wishes the goods purchased, or specifies the price and terms and refers to date of quotation, handing it then to the order clerk who gives the order its proper consecutive number, and, being a stenographer, writes it on the typewriter and places it before the buyer for his signature.

The original requisitions from the storekeeper are now filed in a pigeon-hole cabinet, classified by material

so they may be found quickly if wanted. Once a week the order clerk checks up with goods received and removes from the file all requisitions which have been filled, making a system simple and effective yet free from duplicated effect.

Purchase orders are made in triplicate by the use of carbon paper, each copy on paper of a different color.

The original and duplicate are the same in matter except that duplicate, which is sent to the receiving clerk, is provided with a date line in which to note the entire receipt of goods called for on the order. The triplicate or "hustler sheet" (Figure II), however, is quite different and is the basis of the system.

The original is sent to the manufacturer or dealer who is to furnish the goods and gives complete shipping instructions, the buyer's order number, number of account which is to be charged, and shop ordering the material, with their shop or job number.

It specifies that these order numbers are to be put on all invoices, bills lading and packages; that acknowledgment is necessary and that orders must be filled as specified or the shipper will be held responsible for errors and omissions. This company allows no charges for packing, boxing, or cartage.

Referring to Figure II, this "hustler sheet" is given to the clerk handling their hustler card system which will be described further on.

This clerk notes in space following "acknowledg-

promptly the receipt of the order, their attention is called to it at once, and another date is noted in the remaining space after "acknowledgment due."

Upon receipt of an acknowledgment of the order, the hustler clerk endeavors to secure early delivery of

Record of Correspondence, etc., relating to order shown on opposing page.	
Acknowledged by {	
Post Card <u>4/12/61</u>	
Letter _____	
Telegram _____	
○	Letter 4/12 - Has entered against contract of 12/17, but order same will deliver contract tomorrow by train.
	Our reply that upon examination of our records find that we will be able to deliver after you have filled this order approximately 12 tons.
	Then letter 4/17 acknowledged just this morning.
	Our letter 4/18 regarding payment of shipment.
	Then reply 4/18 "Expect to ship in about 2 weeks."
	4/18 Re reply - should ship again.
	Reply 4/18 "Expect to ship about 4/27."
	Our letter 4/18 regarding shipment of personnel.
	Our letter 4/18 to trucker's balance still unpaid.
	4/18 For car # 3767
	4/18 Requested train after 2nd ship x for
	4/18 Completed

Figure II (Reverse)

the material. On the date indicated by him in the space after "material due," all the cards in that day's compartment of the hustler file are examined by him and where necessary the delinquent firms are written to. Another date is noted on the card and it is again placed in the file for attention when that date arrives.

Following the address and in spaces directly under

"show on the top line," the date of invoice and amount of bill is recorded vertically, and in the same column, opposite the goods ordered, is recorded the quantity billed.

If the quantity received does not complete the order but is an installment, it is briefly indicated by drawing a rough circle around the quantity billed so that a glance will show the exact state of the order.

On the back of this sheet is provided ruled space for a record of correspondence in connection with the order. This space provides for classification of acknowledgment, such as postal card, letter, telegram, etc. Dates and substance of letters are also noted thus giving immediate information if necessary.

These hustler sheets are filed permanently by consecutive order numbers in a loose sheet binder. In addition to this numerical arrangement there is in the back of binder an alphabetical index which gives the purchase as well as the shop order number. The back of the last order answers for memoranda of previous order.

The hustler or tickler card system mentioned is handled on a small card like Figure III. When the purchase order is made and handed to the hustler clerk he notes number of the order on the card and the name of the concern of whom goods are ordered. In the small squares he inserts a date on which an acknowledgment should be received. He now places the card in a pigeon-hole rack having thirty-one divisions, each representing

a day of the month, placing the card in the division corresponding with date shown on the card.

This card remains there until that day when it is removed and the hustler sheet which it represents is given individual consideration, as already explained.

When the acknowledgment is received and the shipping date is given this card is again placed in the file sufficiently far ahead to allow time for shipping papers to reach the purchasing department.

On this date the card again comes before the hustler clerk and directs attention to the order it represents and shippers are reminded that they have failed to keep their promise.

Another use for the hustler file is any outside matters, engagements, etc., are handled on these cards and the buyer is thereby relieved of much worry in connection with matters needing attention. These cards turn up daily and the system is kept with little effort.

All goods received at the different plants pass through the hands of a receiving clerk who makes in duplicate a "receiving clerk's report" (Figure IV). It is in size 4x6, the duplicate is of a good quality of heavy

Regulation No. 38209
Name B. J. Goodrich
Should Have Attention on Date Shown Below.
7/6

Figure III

This enables the stock clerk to charge out all material at its full cost as used, and to make the proper reports to the cost department.

When the buyer receives these reports from the receiving clerk, they are checked with the invoice and the cost per bill is noted in the proper column.

The duplicate is now pasted at one end, on a copy of the purchase order in the buyer's office.

ARTICLE		QUANTITY	
Values (Rubber)		500	
MEMORANDA			
		COST PER BILL 114.40	
		ADD FREIGHT 77	
		ADD DAMAGE 115	
		TOTAL COST 115.77	
		COST PER LB 115.77	

DISTRIBUTION											
DATE	RECEIVED	ON HAND	DATE	RECEIVED	ON HAND	DATE	RECEIVED	ON HAND	DATE	RECEIVED	ON HAND
7/17	36	164									
9/21	72	392									
9/24	54	338									
9/25	63	275									
9/27	163	112									
(The blank space above can be used for any remarks regarding stock)											

Figure V

The original is sent to the stock department, where, in a properly indexed card cabinet it becomes a record of these goods.

As the material is drawn out by the factory, the amount used is noted in the column provided for that purpose.

When the goods are all drawn out and consumed,

the card is transferred to another file which serves as a permanent purchase record.

The volume of purchase is so great, that a division of the work has been found to be necessary, and all goods ordered in the city, are purchased on what is termed "City Order," Figure VI, which is made in duplicate, the original of this city order being sent to the dealer or manufacturer furnishing the goods and the duplicate

The
"City
Order"

PURCHASING DEPARTMENT.									
THE STILWELL-BIERCE & SMITH-VAILE COMPANY.									
CITY ORDER.									
Dayton, O. Sept. 9, 1901									
ENTER THE GOODS AS FOLLOWS:									
QTY	UNIT	PRICE	TOTAL	DESCRIPTION	UNIT	PRICE	TOTAL	REMARKS	QTY
18	6001	8 per		6" paper 12" long each with 9" bound on each side	li				6001
100	72	2		3" SR. 12" x 14" 1/2" thick	Mo				100
64	—	2		Receiving 2" x 14" 1/2" thick					64
86				1000 1/2" Black Paper	B		607		

THE STILWELL-BIERCE & SMITH-VAILE COMPANY
M. B. Lyman

REQUISITION
1514

Figure VI

to the hustler clerk. The original requisition from whatever department goes to the receiving clerk.

The duplicate furnished the hustler clerk is filed numerically in loose sheet binders. The receiving clerk reports to the stock department, as in case of goods purchased out of the city, and this report passes through the regular channel, as previously described.

Figure VII is the index card to all catalogues,

NAME		DEALER?	MANUFACTURER?
Norton Emery Wheel Co.			
ADDRESS		Worcester Mass.	
CATALOGUE NO.	3074	PAGE	
Waltham Emery Wheel Co.			
ADDRESS		Waltham Mass.	
CATALOGUE NO.	675	PAGE	
Safety Emery Wheel Co.			
ADDRESS		Springfield O.	
CATALOGUE NO.	2226	PAGE	
Hampden Corundum Wheel Co.			
ADDRESS		Brightwood, Springfield, Mass.	
CATALOGUE NO.	2266	PAGE	
Scranton Corundum & Emery Co.			
ADDRESS		Scranton Pa.	
CATALOGUE NO.	1104	PAGE	
Chas. A. Stielinger & Co.			
ADDRESS		Detroit Mich.	
CATALOGUE NO.	1005	PAGE	244-246
Valvline Wheel Co.			
ADDRESS		Newark N.J.	
CATALOGUE NO.		PAGE	
Star Corundum Wheel Co.			
ADDRESS		Detroit Mich.	
CATALOGUE NO.	651	PAGE	
Detroit Emery Wheel Co.			
ADDRESS		Detroit Mich.	
CATALOGUE NO.	2123	PAGE	

MATERIAL EMERY WHEELS

Figure VII

which are classified by materials. The quotation clerk keeps this index and as addresses or catalogues are received, he notes its number on the card and places it in the cabinet.

At present there are on file in this cabinet some 5,000 catalogues and other descriptive matter pertaining to material. By this system of indexing the buyer has almost instant reference to any and all catalogues as they are wanted.

PUT QUOTATIONS FOR BUT ONE KIND OF MATERIAL ON THIS CARD.									
MATERIAL		(SEE ALSO OTHER SIDE)							
NAME OF FIRM									
ADDRESS									
DATE	PER	QUANTITY	SIZE	STYLE	GRADE	LIST PRICE	DISC'T	NET PRICE	V. O. N. - 1
1/10/00	Letter	1	Hard	Engines single or double		2000			Conti
1/10/00	-	1	Porters	Engines		2000			
1/10/00	-	1	Hardhead	Engines		2000			
1/10/00	-	1	Hardhead	Engines (Hawthorn)		2000			
1/10/00	-	1	Heavy	Stroke Engines		2000			
1/10/00	-	1	Heavy	Duty		2000			
All quotations are with discount here per cent.									
will be quoted on application									

Figure VIII

This card is printed alike on both sides, permitting eighteen addresses to be recorded thereon.

Figure VIII is a quotation card, kept in a cabinet and is classified by material. This form is self-explanatory.

But one kind of material and the name of but one concern is kept on each card, but the space below per-

information essential to the intelligent handling of cars and is a record from which their freight bills are checked.

Figure X is also a book, in which is recorded complete information of less-car-load shipments. It is made up directly from the freight bills as they are delivered to the buyer by the drayman.

In exchange, due bills are given the drayman for a like amount, as goods are received. At settlement time the itemized bills of the drayman and the due bills presented by him are checked with this book.

Figure XI, a postal card printed in copying ink, is advice to railroads as to where cars are to be placed. These instructions are telephoned first and confirmed by card, a press copy of which is retained by the buyer.

No opportunity is given for wrong delivery of freight. All points are covered so that cars are delivered as soon as they arrive in Dayton, this is a great saving of time and expense to this company in completing contracts for goods to be manufactured.

As soon as the buyer has been informed by the railway companies of the arrival of cars of freight and has given them placing instructions, a
Notice to the notice is made in triplicate, like Figure
Transportation
Company XII, and a copy is sent to each of the shops. This is done so that each shop is advised as to incoming cars whether loaded or empty, and in many instances such information in the hands of the receiving clerks has prevented errors on the part of the rail-

road employes. Then, too, the stock department is advised in advance, of the arrival of goods and is able to properly provide suitable storage. This, in some cases, avoids demurrage charges.

This scheme was perfected after considerable

August 1901									
FREIGHT BILLS.									
Railroad	Load	Wt. of L.	Day of M.	Car No.	Transported From Car	From	Shipped	Item	Weight
Chgo & N.Y.	1000	100	10/1	10920		Med. Cl.	Don. Mfg. Co.	1000	1000
Big 4	1000	100	10/2	10925		Clas.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/3	10929		Med. Cl.	M. J. Taylor Co.	1000	1000
Med. Cl.	1000	100	10/4	10930		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/5	10935		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/6	10939		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/7	10944		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/8	10947		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/9	10951		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/10	10954		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/11	10957		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/12	10960		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/13	10963		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/14	10966		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/15	10969		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/16	10972		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/17	10975		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/18	10978		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/19	10981		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/20	10984		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/21	10987		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/22	10990		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/23	10993		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/24	10996		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/25	10999		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/26	11002		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/27	11005		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/28	11008		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/29	11011		Med. Cl.	M. J. Taylor Co.	1000	1000
Chgo & N.Y.	1000	100	10/30	11014		Med. Cl.	M. J. Taylor Co.	1000	1000
Big 4	1000	100	10/31	11017		Med. Cl.	M. J. Taylor Co.	1000	1000

Figure

trouble had been experienced with the factory and railroads, and has been the means of saving much time, money, and trouble.

This notice (Figure XII), is returned to the buyer after all the cars mentioned have had attention, and thus is a check against the receiving clerk's report of goods received, as well as forming a record of dates

upon which cars are ready to be returned to the railroad company, loaded or empty.

Figure XIII is a pencil pad, kept in the buyer's office exclusively for recording telephone orders received from the different shops. These are checked

FREIGHT BILLS.											
Rate	Amount	Alt. Charges	Total	Drayage	Handled by	For	Order No.	Charge	RECEIVED		
									Date	Amount	
7			1.00	1.30	@	5	36988	\$64			
22			56	30	2	W	35195	#18			
			32	24	—	6	36907	\$66			
	1.00	2.00	68	30	@	W	36872	#18			
34	1.00	2.00	74	30	@	6	For and power to shift from the Co				
			12	55	40	@	6	36561	#105		
48			2	40	30	@	6	36666	\$64		
			62	74	—	2	To River Machine/ Hunter Bridge				
			63	—	2	2	36744	#86			
			86	—	2	W	36789	#11			
28			1	48	2	W	36404	#11			

x

against the requisitions (Figure I), which are always sent to the buyer, confirming the phone order.

Figure XIV is a brief record of a contract and is indexed alphabetically by materials. It is in four page folder form and is also a record of tonnage received on the contract. This permits the original contracts to be kept secure from fire or other destruction, and enables

BUYING

STANDARD RECEIPT

C. H. D. Date Sept 10 - 1917
R. R. CO.

We are this moment in receipt of notification from your office by ^{'vacant seat'} of the arrival in Dayton of the following cars, for which we have given you by telephone placing instructions as indicated:

TIME	CAR No and INITIALS	TRANSFERRED FROM	CONTENTS	PLACING-INSTRUCTIONS
1 st	D. M. 174 p		Pap. Iron	East - 8 th St

THE STILWELL-BIERCE & SMITH-VAILE CO.
Hull
Freight Department.

Figure XI

the quotation clerk to check all invoices understandingly and without delay.

This company frequently desires to place a bid for certain special product. For this purpose an inquiry sheet (Figure XV), is made out in the sales depart-

[illegible]

Figure XII

copied in a press, the copy is retained by the buyer's office and the original returned to the sales department for their attention and disposition.

The handling of invoices by the buyer is still another branch of this system. As they are received they are stamped on the face with a date stamp like Figure

Order No. 21932
 Received 9/25/01
 Price O. K. James Est's O. K. Smith

CHARGE ACCOUNTS	No. <u>21</u>	<u>31</u>	<u>25</u>
	No. <u>64</u>	<u>47</u>	<u>60</u>
	No. <u>57</u>	<u>35</u>	<u>90</u>
	No. _____		
	No. _____		
TOTAL		<u>11</u>	<u>475</u>

Figure XVI

XVI. Then they pass to the quotation clerk by whom the prices and extensions are checked and distribution is made to the proper accounts. From him they pass to the hustler clerk who records this information on his copy of the order, checks it with the goods received slips, etc.

Everything being found in accordance with the prices and terms of the order, the freight or express receipts are attached to the several invoices and they are sent to the accounting department for voucher and payment.

Carbon copies of all correspondence are taken, no press copy books being used.

CHAPTER XVIII

A COMBINED PURCHASING AND PRODUCTION ORDER SYSTEM

BY W. D. LEGGE

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The place of the purchasing department in business and factory organization is generally well defined. The functions of this department are, as a general thing, very well marked, and are limited to the purchasing of raw material and outside supplies for the factory or works. Modern factory organization, however, provides for the extension of the purchasing department, making the duties of the purchasing agent go beyond that of a mere supplier, and have him concerned in the production end of the business, to some extent, as well as in the supplying.

The duties of the purchasing agent, therefore, have a tendency to extension rather than curtailment. The reasons for this are not far to be seen.

On the adequate and well timed supply of the factory or works depend the initial profits. Cost of production takes care of production profits, while the work is in progress through the factory; the selling force takes care of the selling profits, in its progress from warehouse to consumer; but the first point at which

profit can be looked out for is by the purchasing agent at the intake of the business.

If his efforts are either ill-timed or inefficient, the first step in the work for profits is wrongly taken. If he over-supplies or under-supplies his factory, his efforts are ill timed. If he does not buy at lowest possible price his work shows inefficiency. The latter phase is one that is perhaps not as difficult as the former. To buy at a low or live price is the prime requisite of every purchasing agent, and there are few who occupy that responsible position who are not either born buyers or who have not undergone a thorough course of training, so as to be able to supply their plant at a fair and equitable price. The requirement, however, which seems to be of great importance, is that the stock order department be so adjusted with the production order department that the two be complements of each other.

In order to do this, the purchasing agent must know the course of goods through the factory in becoming the finished product from the raw material which he purchases.

It is with this idea in mind that the following stock and production order system is here given. This is not a system in exact use in any known factory. It is one that embodies the leading points of several systems of this class.

It must be always considered that no factory or works is surrounded by ideal conditions. One factory

may have the buildings so systematically arranged that the product takes such a natural course through

The Purchasing System and the Factory

the plant that it is necessary to keep only a small number of components on hand, while another works of exactly the same description may have a stock room so placed or have other conditions such that it is necessary to keep two or three times as many components on hand, because of the difficulty in suitably checking them or getting them at the proper time to the department where they are needed.

The exact descriptions of the systems of plants in either of the above class would necessarily take into consideration the imperfections surrounding them, and these descriptions would not be ideal because of their exactness, though of certain value because representing the actual workings of certain factories.

It is found by many superintendents of works that one of the surest methods of putting in a system of any

Adopting a System Bodily

kind, is to transplant one bodily from one place to the particular works in which it is designed to be used. This means that the imperfections of the system adopted which are there because of some structural imperfection of the factory, are appropriated along with the system itself. The result is easy to be seen. No two factories have exactly the same working conditions, and even if they had they are not managed by the same man, and the work is not turned out by the same class of employés.

This explains the fact, that while a system working smoothly in one factory or works, when transplanted bodily to another plant of apparently the same kind, fails to meet with success. The adapter has taken along the imperfections which were necessary to one factory and by reason of these imperfections the system does not work and the result is so unsatisfactory that the manager lays it to everything except the right cause, the fact that he installed an imperfect system instead of one ideally perfect. It is as though an engineer chose to work with imperfect data when perfect data was at his command.

All these arguments are in favor of an "ideal" system instead of a "practical" system taken from another plant.

The extent and minuteness of any system of purchasing varies directly in complexity as the product.

At the extreme end, as regards simplicity, stands the mill or factory with uniform output. This may be of the simplest kind, as a flour mill, a tub factory, or any similar plant. A product may be more varied than in this instance and still retain comparative identity, as in a furniture factory making only chairs or tables. At the other extreme stands the works which has a constantly varying output, being so organized and running under such conditions as to have no two days' work similar, with a corresponding variation in the product made up. Engineering works of this class

**The Two
Extremes
in Factories**

will be readily brought to mind, the product of which not only varies from day to day, but may have a corresponding change from year to year, as the demand of patrons or of patronage changes.

Between these extremes is found a plant typical of those combining many of the features of both of the classes noted above. Suppose—as in the specific case here treated—there is a factory producing a complex product which varies principally in design by the difference in number and arrangement of standard parts. There may be fifty, a hundred, or more designs made, these bringing the output nearly into the variable class as the machines produced—in this case cash registers—vary from the standard type. But many standard parts are components of every machine. Many parts too, will be nearly standard, varying but slightly in the different machines. Certain parts will be components of but one machine—odd parts.

The first class of parts—those standard—will be subject to manufacture in large lots. The second class—those sub-standard—will be manufactured in smaller lots, while the third class must be made up from time to time as demanded.

This general condition of manufacture calls for a purchasing department run in conjunction with the production order department. In order that the purchasing agent may act intelligently he must be at all times apprised of the amount of components—either standard or non-standard—in the factory.

Specifically the requirements of a factory such as last described is as follows :

(1) The economical purchase of all raw material and factory supplies.

(2) Disposal of all purchased product.

(3) Use of the perpetual inventory to (a) Store all material; (b) Keep track of all material at all stages of work in all departments.

It will be seen that these three requirements are such as call for duties usually considered beyond those of the purchasing agent. Indeed it is difficult to say where the duties of the purchasing agent leave off and those of other departments begin. This is called for by the class of manufacture carried on by the factory, but the definition of the duties of the purchasing agent are not the important part of the system. Departmental organization takes care of that and the proper use of charts of authority combined with detailed instruction as to the duties of each department, makes a condition that precludes any interference or friction between the various departments.

It is now the common practice in by far the larger percentage of manufactories and works to keep separate the purchasing agent's duties as follows :

(1) Purchasing of raw material.

(2) Storing of raw material.

(3) Stocking of finished components.

Where conditions are as have been treated before

**Extension of
the Purchasing
Agent's Duties**

in this article it will be found that by combining in one department these various functions, that not only will factory organization be furthered but the resulting benefits of good factory organization will accrue. This is made necessary by the fact that the ordinary purchasing department merely looks after the purchase of raw material. This system may be enlarged, particularly by those dealing with only the larger class of works. The purchasing agent, unless he be at the same time assistant superintendent, or general engineering manager, concerns himself little with either the work in progress or the number of components made up.

But in the factory manufacturing a product of which cash registers are typical, as that from which the forms used in this system are taken, the finished components are at all times of greater importance than the raw material, and it is so important to the advantageous manufacture of the completed product that the purchasing agent becomes its custodian, and the purchasing department comprehends its oversight.

The products entering into the manufacture of machines of this class range in number from 50,000 to 75,000. Raw materials or those partially made up number approximately from 1,800 to 2,800.

The specific duties of the purchasing agent are shown most clearly by the blanks which he uses. The blanks used by his department determine his duties,

and the following are given with the explanations necessary to the full understanding of the system.

The first step in any system is to record and file catalogues and lists. These catalogues, when not heavily bound, if they are to be subject to much handling, should be suitably covered and furnished with permanent identification numbers. Lists from the same house may be numbered separately if desired. A better plan is to bring all lists of one supplier—binding them together—under one reference number, and sub-number or—letter the various lists, so as to make sure that none are misplaced.

**Catalogue
Filing**

Thus, supposing the Standard Machinery Company issues three lists as follows: Bolts, pinions, and belting, their catalogue number being 182. All three current lists can well be brought together under catalogue number 182; bolts being 182 A; pinions 182 B; belting 182 C. In case the Standard Machinery Company at any time extends their lists to include any other supplies, these will be designated by 182 D; 182 E; 182 F; etc.

There are various forms of extensible binders on the market, or the lists may be bound together by the office boy at comparatively little trouble or expense. This is especially advisable where the catalogues are filed in open pigeonholes or other disposal made of them which leaves them open to dust. All catalogues

or lists for reference should be enclosed in dust-proof compartments and never—as is sometimes the case—left in piles or stacks or arranged as are books on a shelf.

CATALOGUE INDEX				
CATALOG NO.	SUPPLIER	GOODS	WHERE FILED	REMARKS

CATALOGUE INDEX				
CATALOG NO.	GOODS SOLD	SUPPLIER	WHERE FILED	REMARKS

Figure I; catalogue index or general supplier's list
 Figure II; catalogue index or general supply list

Catalogues when received, are entered upon the form shown in Figure I, known as the catalogue index or general supplier's list. This latter name is used to distinguish it from the private supplier's list, described in its turn. This exhibits the catalogue number, corresponding to that pasted on the back or side of the catalogue. Where the supplying firm handles several lines it is best to "ditto" the "Supplier's" column and give a separate line under "Goods" to the various lines handled by the supplier, with the proper entry in the "Where Filed" column.

The reverse side of this sheet may be used for the general list of suppliers, a duplicate list—indexed however on the goods or material furnished—instead of on the name of the supplying concern. The use of the reverse side of the catalogue index is commonly used to avoid two sets of cards and consequently two trays. In case there will at any time be a call for the use of both sets at the same time, the trouble and expense of two trays will be well repaid.

ORDER NO.					QUANTITY					WHERE STORED				
NAME										DATE				
SPECIFICATIONS														
LIST OF SUPPLIERS														
FIRM NAME					GOODS					LIST NO.		FILE NO.		REMARKS

Figure III; private list of suppliers
Figure IV; supply card

Figure III shows the form, private list of suppliers. This is substantially the same as Form I, but is designed to be kept along with duplicate quotation records for the exclusive use of the purchasing agent. Either on this card or on the duplicate quotation record cards, is kept in symbol all confidential records and quotations to prevent this knowledge being used by those having

The
Private Sup-
plier's List

access to the general files. Circumstances frequently arise in the purchasing department when it is absolutely essential that quotations be kept secret, both to prevent confidential prices "leaking" or rebates being arranged by under employés and the representatives of competing suppliers.

It is usually found most satisfactory to have these cards printed upon but one side, a blank card index being used indexing on the supplies or goods instead of duplicating the same data, as is done in Forms I and II.

Figure IV shows the supply card, or list of supplies. This form is used for the recording of supplies of all kinds to be used in the factory or works. These forms are commonly numbered consecutively, in which case they are indexed by numbers, so that any given line of supplies may be found at once. If not numbered consecutively they may then be filed alphabetically, but consecutive numbering has been found to be the best.

The vital point of this supply list is the index. Because of the simplicity of indexing it is a point often overlooked in connection with the list. Whenever a new card is made, before being added to the list it should be entered in the index. Card indexes are made up upon plain cards under alphabetical guide cards.

The purchasing agent is notified that stock is approaching or has approached the minimum point permitted by factory economy, by the minimum stock

notice, Form V. This form is issued from the raw stock room and is the warning card which calls for a purchase of the line of supplies running low. The stockkeeper obtains this information from the perpetual inventory described later.

The minimum line must be much more carefully fixed than the maximum as a shortage may result in the stoppage of a shop order in the process of manu-

STOCK NO.		NAME		
DATE	QUANTITY	QUOTATION MADE BY	NET UNIT PRICE	P. O. NO.
STOCK NO.		MAXIMUM	MINIMUM	ON HAND
NAME		DATE		
BY OR ORDERED BY				
ORDER NO.				
QUANTITY				
SHOP ORDER				
REMARKS				
ORDER NO.				

Figure V; minimum stock notice
Figure VI; quotation record

facture. The maximum line if placed too low means too frequent purchases; if placed too high means that a disproportionate amount of capital will be tied up in supplies.

The form known as the quotation record and used to record any quotation made, whether by letter, telegraph, or telephone, is shown in Figure VI. The complete quotation record should include every quotation made the firm, and so recorded forms a valuable and interest-

The
Quotation
Record

ing history. It is no mean education for the progressive buyer to watch the quotation history of a purchase or group of purchases, noting in his mind the causes which lead up to a certain price and testing his ability to forecast the fluctuation of future quotations by similar past conditions.

What has been said previously concerning the keeping of prices or terms in symbol applies with equal force here. In twelve engineering works visited, using some secret method of indicating prices or concessions, five made such entries on the "Private List of Supplies" card; four entered all such concessions, special discounts in symbol on the quotation card; three made no entries on the quotation card but kept a synopsis of correspondence pertaining to such quotations in a secret file under the head "Private." This file was referred to before placing an order and if no card was found in the file it determined that quotation prices were to rule.

The purchasing agent of one of the latter works when questioned as to recording symbol prices said as follows:

"For a long time I kept my quotation records open to several employés, a confidential clerk, a stenographer, and indirectly the foremen of the various departments. Best prices, concessions and similar data were openly recorded and I had no reason to believe that such information was misapplied.

"Entirely by accident I was convinced that we had

been paying a shade too much for our brass supplies, and a careful investigation determined that a working agreement existed between a foreman of one of our departments and a salesman with whom he was acquainted, the former receiving a small commission from the latter on all supplies furnished the house.

ORDER NO. DATE ORDERED		
.....		
WEIGHT, QUANTITY, OR MEAS.	STOCK NO.	SPECIFICATIONS
DATE WH. STORE		
PLEASE ORDER THE ABOVE ORDER SUPT		

Figure VII; purchase requisition

"This led me to place all prices on the quotation cards in cipher, but this proved to be too much of a good thing, and after considerable experimenting I now place a symbol or key number on every quotation card after the price. This is meaningless in case there is no special discount or arrangement, but where any extra, special arrangements have been made this keys to a private list, known only to myself and the general manager.

"I gave every representative selling our firm and every manager making us a quotation to understand that we have a suitable system for keeping quotations secret if desired. This is of advantage in many ways. There is a great difference in firms, I have found. Some wish even their correspondence to be kept sacredly confidential, and others are not averse to having any and all of their quotations known to the usual number of employés. In any event it shows a good grasp of business to have such a system installed as will be able to treat as confidential any information desired, as furnished by the supplier."

Figure VII shows the purchase requisition. The function of the purchase requisition differs in different factories according to the distribution of the purchasing authority. Usually the purchasing authority vests in the purchasing agent as regards certain clearly defined classes, or up to a certain, determined sum. For the sake of uniformity, orders—as from the general or business manager, or requests—as from the foremen, are entered on the purchase requisition, which is then turned over to the purchasing agent. In case this is an order from higher authority, it becomes the duty of the agent to secure the best possible prices and have it filled as it stands. In case it is in the nature of a request, as from a foreman or department head, the purchasing agent passes upon the order, using his judgment as to filling it as it stands or with an amendment or amendments.

The Purchase
Requisition—
Its Use

ing orders coming to a firm and rarely two are alike in wording, though in size a standard is often observed, that of $8\frac{1}{2} \times 11\frac{1}{2}$ inches—letter size. The odd size purchasing order sheet is a bother about the systematic office and as purchasing agents' associations are perfected a move for uniform stationery will doubtless be made.

The first or white sheet goes to the supplier.

The second or yellow sheet is retained in the purchasing office.

Ordinarily the third, or pink copy goes to the receiving room to assist the receiving clerk in checking up receipts. This procedure, however, is condemned by many late authorities and on this score:

The receiving clerk is obliged to check only "Number or Quantity" of goods will not be as particular as

though that column were left blank and he had to fill it in on arrival of the shipment. This would necessitate an accurate count and instead of being in an unidentifiable check it is in the handwriting of the receiving clerk. In order to effect this a slip of paper the width of the "Number or Quantity" column is tipped to the third or pink sheet. This slip takes the carbon impression of the "Number or Quantity" column and is removed and discarded, leaving the blank with that information to be supplied. This absolutely prevents any careless checking on the part of the receiving clerk.

To Remedy
Careless
Checking

Where the receiving clerk has the storekeeper or

stores clerk check of received goods, the form may go to him with the rider attached. He thereupon removes the rider, numbering the back to correspond with the order number, when he turns over the form to his subordinate to check. This enables the receiving clerk to have any discrepancies checked immediately. The consignor's invoice may be retained in the main office or turned over to the receiving clerk as desired.

This method does away with a memorandum of receipt blank sometimes used.

The purchasing order acknowledgement, shown in Figure IX accompanies the order to the supplier. This takes the place of a return letter of acknowledgment and often accelerates delivery by binding the supplier to do a definite thing—a good plan at all times. If desired two sheets may be forwarded, one to be returned and the other to be retained by the supplier, though usually but one is sent.

If it were true that goods or supplies ordered were always shipped at the time promised on the purchasing order acknowledgment, the next card in the series—the purchasing order history card—would not be necessary.

This card is, as its name implies, a concise and correct summary of the order, from the time of its inception until it is dead and closed off. This form is not only of use as a live card, showing the condition of an order still in hand, but it is an actual exposition, also,

of what actually may be expected of an order similar to one being made up. A number of these cards covering data from the same house will decide perfectly, whether or not a particular supplier is to be considered as prompt or not. It often happens that the prices of a number of suppliers are substantially the same. In

STOCK NO.		NAME	
ORDER NO.		ORDERED FROM	
DATE ORDERED	QUANT.	NET PRICE	T. & B.
		UNIT PRICE	
DATE WANTED	DATE PROMISED	DATE INVOICED	DATE DUE
		DATE DELIVERED	QUANT. ACCEPTED
REQ. B ON ORDER NO.		FROM	
VIA		CHARGES PAID	
STOCK NO.	NAME	NO. ON QUANT.	GROSS WT.
NO.		DATE	
		REQ. CLERK	

Figure X; purchasing order history card
Figure XI; stores received note

that case an order naturally goes to the one who can furnish the supplies and set them down at the factory door in the shortest time. It also shows whether or not the firm is liable to substitute inferior goods in place of those ordered. Most firms have a hard and fast rule that any substituted article will be rejected at the supplier's expense, nevertheless there are cer-

tain firms who make a very poor showing in the "Quantities accepted column."

For conciseness of information contained in a form easily referred to, this card is of daily interest to the purchasing agent, so that he will never go amiss in consulting it.

ORDER NO. NAME				
ORDER NO. SHIPPED BY				
QTY. REC'D	QTY. ORDERED	QTY. DELIVERED	QTY. ACCEPTED	STORES REC. NOTE NO.
REMARKS FOR REJECTION				
NO. DATE INSPECTOR				

Figure XII; stores rejected note

Were the entire amount of the order always billed by the supplier, the stores received note, shown in Figure XI, might be dispensed with. In some factories this card is used instead of the second sheet of the purchasing order, by the receiving clerk to notify the purchasing agent that his supplies ordered have arrived. In most factories, however, this stores received note is used only

The Stores
Received
Note

when partial shipment is received, the second sheet being used when an entire order comes in.

The stores rejected note is shown in Figure XII. This form is the next one in sequence and is self-explanatory, being used as notification that certain supplies are not accepted and giving the reasons for such rejection. This form is made out and signed in large factories by the

The Stores
Rejected
Note

NO. DATE	
..... EXPRESS CO. HAS DELIVERED THE FOLLOWING ON WHICH TRANSPORTATION CHARGES ARE DUE	
AMT. DUE.	
REC'D STORES REJ. NOTE	
..... REC. CLERK	

Figure XIII; express charges note

raw material inspector. In small plants the receiving clerk generally has this in charge.

Another form practically self-explanatory is the express charges note shown in Figure XIII. This is called the express charge form for the reason that freight charges are recorded in the stores received note, Figure XI.

This last form is where the ordinary purchase system leaves off. The catalogues from which the prices are obtained have been suitably recorded; the steps leading up to the making of a purchasing order have been taken and provisions have been made for the record of all facts effecting the delivery of the goods order.

The next card shown in Figure XV, is the initial card in a cost of production system and is known as the raw material issue requisition. The function of this card in a cost of production system is that it furnishes the authority of the stock keeper to issue material to be made up into components or finished product.

PRODUCTION ORDER NO.		FOR MANUFACTURE OF PART NO.		
DATE		PLEASE ISSUE THE FOLLOWING MATERIAL:		
QUANTITY		STOCK NO.	NAME	MONEY VALUE
TOTAL	ONLY			
DELIVER TO DEPT. ORDER SUP.				

Figure XV; raw material requisition

Similar to the foregoing card is the factory supply issue requisition (Figure XVI), which, however, is used to order any supplies to be consumed by the factory and not made up into components or finished product.

Figure XVII shows the perpetual inventory or "quantity record" form. Perpetual inventories have

been the subject of much study, both as to the devising of proper forms and in their use to determine accurately the amount of material or supplies on hand, or plant value from month to month or year to year.

The
Perpetual
Inventory

One of the leading industrial engineering authorities of the day* makes clear that there is no such thing

SHOP ORDER NO. FOR			
DATE		PLEASE ISSUE THE FOLLOWING MATERIAL:	
QUANT.	STOCK NO.	NAME OR DESCRIPTION	MONEY VALUE
DELIVER TO DEPT			

Figure XVI; factory supply issue requisition

as an *actual* perpetual inventory; i. e., one that does other than merely show continuous valuations, therefore it seems that a more appropriate name for this card is the one given second—the “quantity record.” This reserves the use of the term “perpetual inventory” to valuation cards as those of plant equipment, etc.

*C. E. Woods, E. E., M. E., *Organizing a Factory*, Chapter X, p. 124.

The working of the quantity record card is extremely simple, only requiring that the accurate report of all incoming and outgoing stock be recorded and the balances brought forward. It is in fact nothing more than a simple form of ledger, and needs only care to make it accurate and reliable. This form is printed on both sides.

It is to be determined how often the quantity record card is to be posted; how many sets are to be

PART NO. OR STOCK NO. MAXIMUM MINIMUM								
NAME								
DATE	DUE		ADDED		STOCK ON HAND	DEDUCTED		CHECK
	QUANT	ORDER NO	QUANT			QUANTITY	ORDER NO.	

Figure XVII; perpetual inventory

used in the factory; how many of these sets are to have duplicates, and numerous other similar questions, in installing a system.

It seems to have been the uniform experience of all factories that postings should be immediate, in order to be *sure* that they are done. There will generally be a card for each unit of raw material and each component, and instead of duplicating each card with its minute data it has been found advisable to make a concise weekly abstract of each set of quantity record cards.

These cards are kept in a vault so as to protect the plant in case of loss by fire.

Modern methods of factory equipment provide for complete records, which, in case of fire, may be presented in such complete shape as to constitute indisputable evidence as to the actual amount of material, components, etc., on hand. It is to be remembered that the burden

PART NO.	QUANTITY	NO. OF TAGS REGULAR	REPAIR TAGS
ROUTINE:			
NAME ON ORDER NO.		ORDER DUPT	
DATE ISSUED		DATE COMPLETED	

Figure XVIII; production order record

of proof in case of loss is upon the insured and the company suffering the loss must be able to show not only the records of all property consumed, but must be able to withstand successfully all attacks made on their accounting system. In court, original records are considered the best evidence, duplicates and abstracts not having the legal weight of originals. For

this reason many plants having extra-hazardous risks and carrying a proportionately large raw stock and components have provisions for storing all original records as a means of protection in case of loss by fire.

The routine card or production order record is shown in Figure XVIII. This card is issued when it

PRODUCTION ORDER NO.										FOR MANUFACTURE OF PART NO.									
DATE										PLEASE ISSUE THE FOLLOWING MATERIAL:									
MONETARY VALUE																			
REQ'D BY																			
PART NO.																			
QUANT.																			
DELIVER TO DEPT ORDER SUPT																			

Figure XIX; component issue requisition

is necessary to make up any component parts, they having approached the minimum point.

Should finished stock be made up by compounding component parts already in stock, the component issue requisition, Figure XIX, is made use of.

Figure XX shows the production order tag, made out in sufficient numbers as to divide the work in its course through the factory as desired. This tag bears the following wording on the back:



3 9015 05533 4158



